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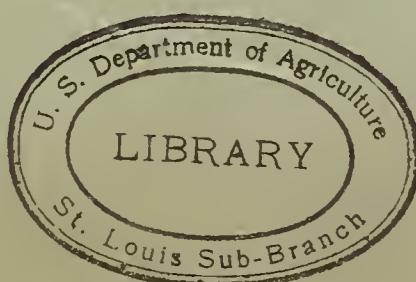
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73-2 U.S. Department of Agriculture
REF

**FIRST
STEPS
IN LOAD-BUILDING**

**A Coordinated Program for
REA Project Officials**



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Adequate wiring is the all-

important basis for successful

load-building. Only after hi

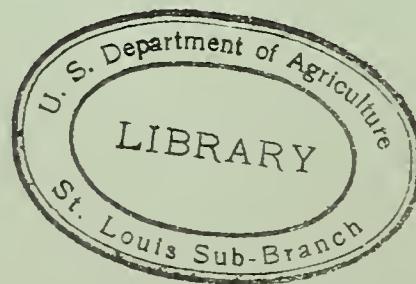
farm is adequately wired can

the user receive the fullest

benefit from electric power.

Only then can a satisfactory

and profitable load be built.



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RURAL ELECTRIFICATION ADMINISTRATION

2000 MASSACHUSETTS AVENUE

WASHINGTON

TO ALL REA PROJECT OFFICIALS:

The material in this portfolio has been prepared to assist Rural Electrification Administration projects in the all-important task of retaining the active interest of project members during the period between approval of the loan contract and the actual completion of lines.

This portfolio presents a step-by-step program that has been carefully coordinated with each phase of construction progress up to the time of energization. Included are letters, pamphlets, posters, wiring check list, suggested plans for group meetings, and statements regarding REA loans for financing wiring, lighting, and plumbing installations and the E. H. F. A. financing plan for appliances. The program outlined, and the materials provided, should help your members decide on the early installation of safe wiring, proper lighting, sanitary plumbing, and reliable home and farm appliances.

All the necessary material is contained in this portfolio. The time for each step of the program is clearly indicated. REA will furnish sufficient copies of the leaflets and pamphlets for all your members. Field representatives of the REA Utilization Division are available to assist in the program.

This program will permit you to bring the full benefits of electricity to your neighborhood, and help to insure repayment of principal and interest owed the Government.

I count on your cooperation to make it effective and to get results from it.

Cordially yours,



JOHN M. CARMODY,
Administrator.

WHEN LOAN CONTRACT IS

- A. Mail Letter No. 1 with booklet, "Wiring Your Farm and Home", and check-list, "Plan a Common-Sense Wiring System." Give out Statement No. 1 for newspapers.
- B. One month later mail Letter No. 2 with wiring leaflet, "Dollars in Your Pocket." Give out Statement No. 2 for newspapers.
- C. Hold Directors' meeting to adopt wiring and plumbing program. See plan for meeting and statement from REA on Installation Loans.
- D. Hold meeting of wiring and plumbing contractors to start activities. See plan for Contractors Meeting.
- E. Arrange dates, places, and leaders for group meetings (Step 3-C) to give all members the story of safe wiring, proper lighting, and sanitary plumbing. Whenever possible, secure assistance of Agricultural Extension Service and REA Utilization Division field representatives.
- F. Begin wiring and plumbing survey immediately, completing as soon as possible.
- G. Apply to REA for wiring and plumbing loan if needed.
- H. Secure bids for wiring and plumbing installations.
- I. Place contracts for wiring and plumbing installations.



CHECK COMPLETED MOVES.

STEP

1

APPROVED

WHEN LOAN CONTRACT IS APPROVED . . .

the load building program begins . . . Wiring needs must be surveyed. Wiring loans must be provided, where necessary. Bids must be obtained for wiring and plumbing installations. Contracts must be let . . . In getting these things done, the project superintendent and his directors will find many aids in this portfolio. The recommendations listed on the opposite page are set up to parallel project development, move by move . . . But note that the suggestions can be adapted to projects far beyond the loan contract stage. Even if your project is built and energized, this program will successfully meet your needs.

GPO 14447



WHEN LOAN CONTRACT IS

STEP 1

APPROVED

A

LETTER 1

STEP 1

(Note.—A set of six suggested letters announcing progress of your project is included in this portfolio. After filling in the blank spaces with data concerning your project, or preparing letters of your own on the same lines, they can be conveniently mimeographed, and mailed to all prospective customers. Letter No. 1 below, should be mailed with a copy of the booklet "Wiring Your Farm and Home" as soon as possible after execution of the Loan Contract.)

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

We knew what we wanted, and we stuck together until we got it. We are going to have electricity. I am proud to announce that the Loan Contract has been executed whereby the Federal Government through the Rural Electrification Administration will lend us (AMOUNT OF LOAN) to construct our project.

Now, we are ready to start work. The new electric lines that will soon be built will serve our community for many, many years to come. With our long-sought goal so close at hand, however, we cannot afford to make many mistakes. From now on it will pay us to proceed slowly and build carefully.

The next few weeks will be busy weeks. There will be legal problems to clear up; plans and blueprints must be made. We have to select a contractor to build the lines. This work must be done and since it will probably be done quietly, without fanfare, there may be times when progress seems very slow. Impatient as we are for electricity, these next few weeks may be hardest of all.

REA assures us that the construction crews will be here in about two months. Shortly afterwards the first of us will begin using current from the new lines.

We are definitely going to have electricity. Now is the time to plan our wiring, decide on what appliances we want first, make provisions for hooking up to the line as soon as it comes. In this way we will get the full benefits of electricity at the beginning.

Yours very truly,

WHEN LOAN CONTRACT IS

PLAN A COMMON-SENSE WIRING SYSTEM

STEP 1

APPROVED

WIRING CHECK LIST

WITH this check list of recommended wiring practices you can easily prepare a common-sense system of adequate wiring for your farm. Your wiring system will be safe, convenient, and adapted to your needs. It need not be expensive either. The farmer who installs adequate wiring in the beginning will avoid trouble and expense later. The capacity of the wiring should be sufficient to permit use of additional appliances without making it necessary to rewire.

Wiring your farm and home is a three-step job.

1. **Making the wiring plan.** The check list on the inside of this folder lists the locations that ordinarily need wiring. Take the list and a pencil and go from room to room marking down the number and location of outlets and switches you will need. The recommended column is based on the past experience of many farmers. It shows the minimum number of outlets and switches usually needed in each location.

Your list may differ from these. For example, your living room may be considerably larger than the average, in which case you may require additional convenience outlets for supplemental lighting.

In the future you may need special heavy duty outlets for large appliances such as the electric range, water heater, and utility motors. It is cheaper to have such wiring done now. Your project superintendent is able to make proper recommendations for the special outlets.

2. **Have a reputable wiring contractor do the work.** When your plan is completed, take it to a good contractor who has a reputation for good work. He will make the wiring fit your requirements. Insist upon durable materials. Have the installation done in accordance with the "National Electrical Code" and local regulations. Upon completion of the job, demand a written guarantee from the contractor against faulty workmanship or materials.

3. **Have the wiring inspected.** After you have a signed inspection certificate from an accredited electrical inspector, you are assured of a good wiring job. In each of these steps, your project superintendent can help you.



WHEN LOAN CONTRACT IS

(SEE PRECEDING PAGE FOR EXPLANATION OF CHART)

CHECK YOUR WIRING REQUIREMENTS

STEP 1

APPROVED

CONVENIENCE OUTLET	LIGHTING OUTLETS				SWITCH OUTLETS		DOUBLE CONVENIENCE OUTLETS	
	CEILING		SIDE WALL		Recom'd	Specified	Recom'd	Specified
	Recom'd	Specified	Recom'd	Specified	Recom'd	Specified	Recom'd	Specified
proof outlet for decorative lighting or used on the porch.	1		or 2		1			
her is operated here.	1		or 2		1 *			
ole lamp and vacuum cleaner.	1				2 *		1	
uum cleaner.	1				2 *		1	
r each wall space but not greater than art.	1				1		4	
le appliances and vacuum cleaner.	1				1		2	
outlets for range and water heater (if to in kitchen), outlet for refrigerator, outlet	1		2		1		2	
rigerator or mixer if used here.	1				1			
sser or bed lamps and appliances.	1				1		2	
sser or bed lamps and appliances.	1				1		2	
sser or bed lamps and appliances.	1				1		2	
sser or bed lamps and appliances.	1				1		2	
	1							
	1							
	1							
	1							
et for washer and for iron or ironer, and water heater if located here.	1				1 *		1	
hing done here.	1							
en each two stalls—in front.	1						1	
outlets on separate circuit from lights, s and incubators.	1				2 *			
15 or 20 feet for milker and groomer.								
water heater, and other devices wired ety switch.								
for ensilage cutter.								
for feed grinder.								
or hay hoist or other heavy equipment.								
ny power-driven equipment.								
n.								

Three-way switches to control light from two points.



NOW—SAVE COSTLY ADDITIONS LATER

LOCATION	LIGHTING OUTLETS	SWITCH CONTROL	CONVENIENCE OUTLET	LIGHTING OUTLETS		SWITCH OUTLETS		DOUBLE CONVENIENCE OUTLETS	
				CEILING	SIDE WALL	Recom'd	Specified	Recom'd	Specified
Front or side porch.	One ceiling or side light on each side of door.	Located inside front door.	Weatherproof outlet for decorative lighting or used on the porch.	1	or 2			1	
Back porch.	One ceiling or two side lights on other side of door.	Switch inside kitchen door and also at back.	Outlets here is operated here.	1	or 2			1*	
Lower hall.	One ceiling light to illuminate stairs.	3-way switch inside door and in upper hall.	Outlets lamp and vacuum cleaner.	1				2*	1
Closet (hall).	Light over door.	Pull chain.	1						
Upper hall.	One ceiling light at hood of stairs.	3-way switch at hood of stairs and in lower hall.	Outlets vacuum cleaner.	1				2*	1
Living room.	One ceiling light.	Switch at door.	Outlets for each wall space but not greater than 10 ft.	1				1	4
Dining room.	One center fixture.	Switch at door.	Outlets for appliances and vacuum cleaner.	1				1	2
Kitchen.	One center fixture and side wall bracket over sink and range. Light on other side of mirror if men shave in the kitchen.	Switch at door.	Heavy outlets for range and water heater (110 volt in kitchen), outlet for refrigerator, outlet	1	2	1		1	2
Pantry.	One ceiling light.	Switch at door.	Outlets refrigerator or mixer if used here.	1				1	
Bathroom.	Light on each side of mirror.	Switch at door (important).	None		2		1		
Bedroom—No. 1.	One ceiling outlet.	Switch at door.	Outlets for dresser or bed lamps and appliances.	1				1	
No. 2.	One ceiling outlet.	Switch at door.	Outlets for dresser or bed lamps and appliances.	1				1	2
No. 3.	One ceiling outlet.	Switch at door.	Outlets for dresser or bed lamps and appliances.	1				1	2
No. 4.	One ceiling outlet.	Switch at door.	Outlets for dresser or bed lamps and appliances.	1				1	2
Closet—Bedroom No. 1.	One light located over door.	Pull chain.	1						
Bedroom No. 2.	One light located over door.	Pull chain.	1						
Bedroom No. 3.	One light located over door.	Pull chain.	1						
Bedroom No. 4.	One light located over door.	Pull chain.	1						
Attic.	One ceiling light to illuminate stairs and one for each separate unfinished space.	Switch at bottom of stairs.	1				1		
Basement	One ceiling light for each 200 square foot or each separate room. One light to be located to illuminate stairway. Light over tubs in laundry.	Switch at head of stairs.	Outlets for washer and for iron or ironer, and water heater if located here.	1			1*	1	
Woodshed.	One ceiling light.	Switch at door.	Outlets done here.	1					
Garage.	One light over hood of each car.	At door.	Outlets on each two stalls—in front.	1					1
Yard light.	Outdoor type, 200-watt, on pole or building, at least 22 feet above ground.	3-way switch, at house and barn.		1				2*	
Poultry house.	Ceiling light for 60-watt lamps, not over 12 feet apart.	Time control located at entrance.	Conco outlets on separate circuit from lights, motors and incubators.						
Cow stable—Front cows.	Porcelain socket swung by heavy duty cord every 20 feet. Same as above but spaced every 12 feet.	At entrance.	Outlets 15 or 20 feet for milker and groomer.						
Back cows.	One light for each 2 stalls.	At entrance.	Milk, water heater, and other devices wired to safety switch.						
Milk house.	Ceiling light, 100-watt, in porcelain receptacle.	At entrance.	Power for envelope culler.						
Silo.	One light in silo and one in top of silo well.	At entrance.	Power for feed grinder.						
Granary and/or feed room.	Ceiling light, 60-watt.	At entrance.	Power for hay hoist or other heavy equipment.						
Hay loft No. 1.	Rafter light in each bay with 100-watt reflector $\frac{1}{2}$ way from top.	At entrance.	Outlets for any power-driven equipment.						
No. 2.	Rafter light in each bay with 100-watt reflector $\frac{1}{2}$ way from top.	At entrance.	Power on.						
Barn floor.	One light with reflector.								
Shop.	One or two lights over bench.								
Pump house.	One light over pump.								

(SEE PRECEDING PAGE FOR EXPLANATION OF CHART)

Three-way switches to control light from two points.

CHECK YOUR WIRING REQUIREMENTS NOW—SAVE COSTLY ADDITIONS LATER

WHEN LOAN CONTRACT IS

REA FINANCING FOR WIRING LIGHTING AND PLUMBING INSTALLATIONS

REA is prepared to finance farmstead wiring, lighting, and plumbing installations. Loans are made to REA borrowers which in turn will finance installations for their members. They are not made to individuals. The borrower lends the individual farmer up to 80 percent of the cost of the job with repayment in semiannual installments spread over periods up to 5 years. The repayments may be scheduled to coincide with the peak periods of farm income. The REA loan bears an interest rate of less than 3 percent a year on the unpaid balance, while the borrowing organization is entitled to charge the individual farmer an additional 3 percent a year on the unpaid balance to cover its expense in handling the loans. Wiring installations are made by independent electrical contractors from plans and specifications approved by REA. Contracts for wiring groups of farms are awarded on the basis of competitive bids. Wiring loans may include service extensions beyond the limit allowed as part of the distribution line under standard REA loans.

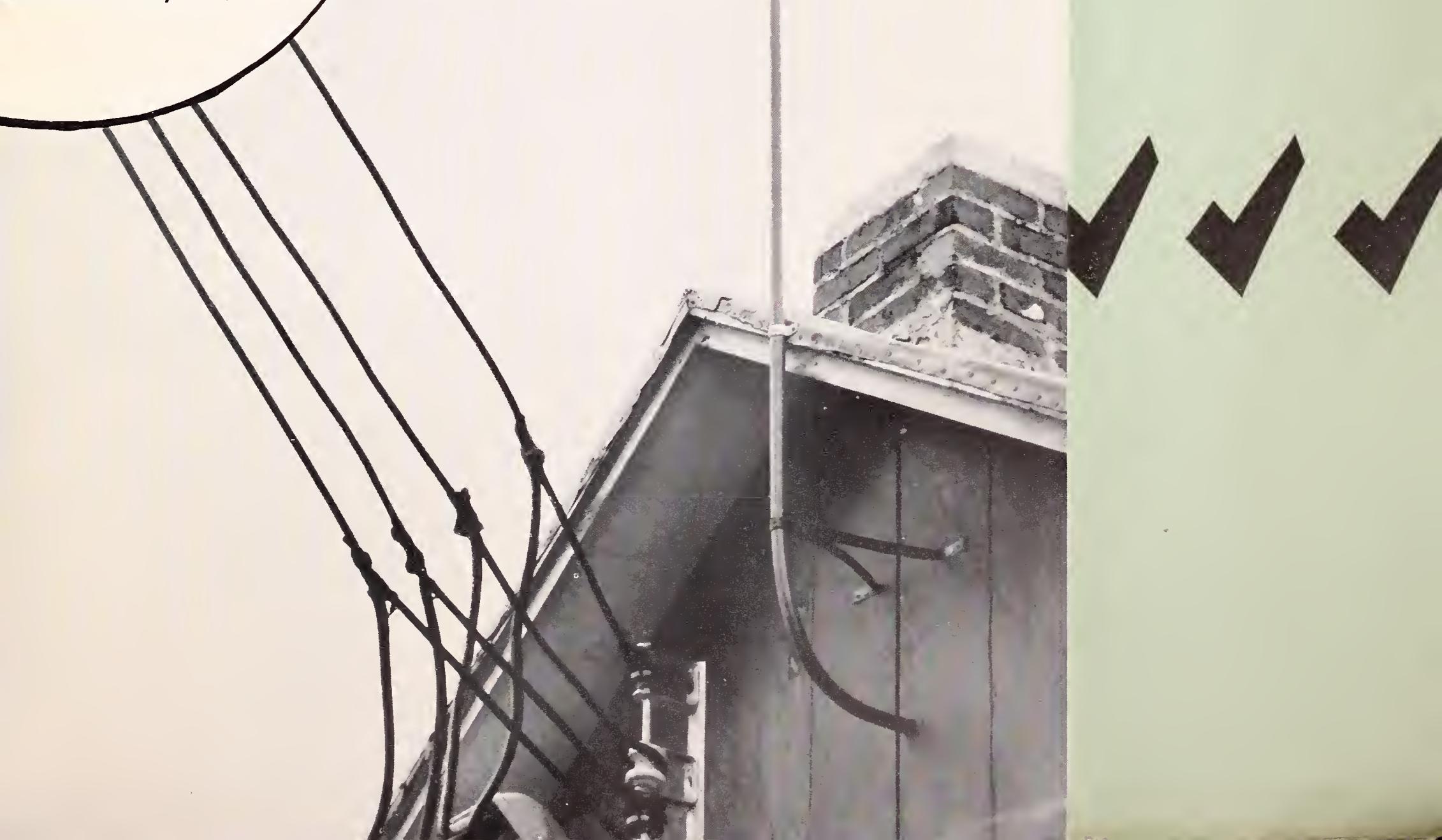
Similar loans are available to finance plumbing and water pressure systems both in the farm home and other farm buildings. A bathroom installation of three fixtures—bathtub, lavatory, and toilet—may be financed, a kitchen sink, and unless otherwise provided for, a pressure tank and pump.

STEP
1

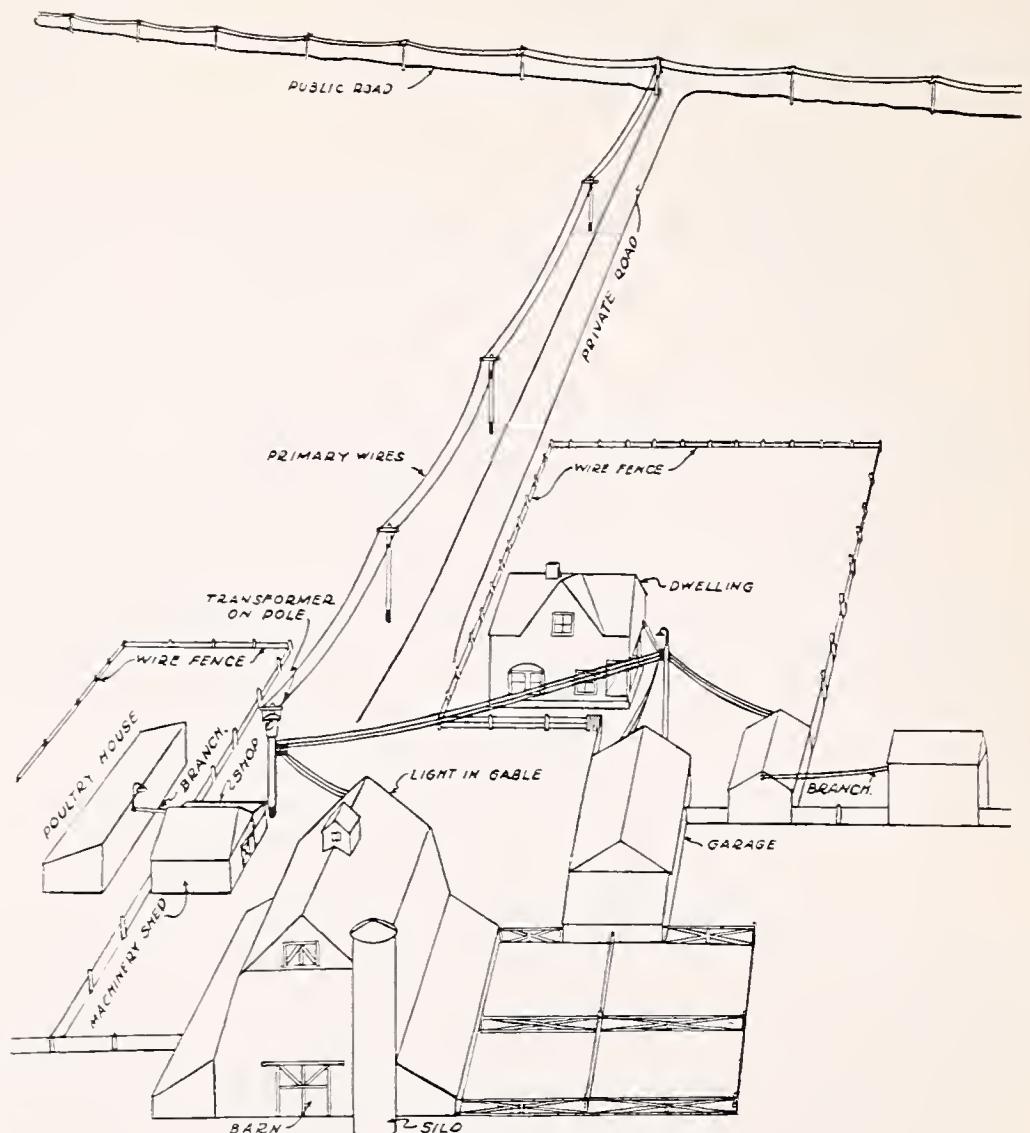
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WIRING YOUR FARM AND HOME

RURAL ELECTRIFICATION
ADMINISTRATION
WASHINGTON, D. C.



WHEN LOAN CONTRACT IS



WIRING YOUR FARM AND HOME

NEARLY everyone has driven along a highway with a narrow band of concrete at the edge of the road. That road had not been built with the future in mind; widening the road cost more in the long run and resulted in a makeshift job at best.

Wiring your farm and your home for electricity is exactly the same kind of thing. It is cheaper to provide a broad electrical highway in the first place than to go back over the job as the traffic in kilowatt-hours increases.

STEP 1

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MAKE YOUR WIRING ADEQUATE

This is the first point in good wiring. It must be adequate—for today and for tomorrow. This means the wires, the main switch, and the fuses (or the circuit breakers) must be large enough to carry the load when all appliances are in use, otherwise your circuits will be as inadequate as a broad highway with a narrow bridge on a Sunday afternoon.

The second point is outlets. There must be plenty of outlets where the flow of electricity can be tapped, just as there must be plenty of feeder roads if a trunk highway is to render maximum services. Put another way, everyone knows that a farm without ready access to market will not fetch the same price (other things being equal) as one located on an all-weather road. Neither can an electrical appliance, whether it be a toaster or an iron or a chore motor or a refrigerator, do its best work unless it has ready access to the electrical roads.

he knows how to lay out the technical details of a wiring plan which will put the electricity where you want it, both in your home and in the farm buildings.

When the job is finished, it should be checked by an electrical inspector, and a certificate of inspection obtained. This inspection will insure your job meeting the



SECURE A GOOD WIRING CONTRACTOR

With these two points in mind the next step is to make sure that the wiring job is carried out by a competent electrical contractor, thoroughly experienced in farm wiring. You know what appliances you are going to install, now and in the future, and where you will probably want to place them;

WHEN LOAN CONTRACT IS

requirements of the National Electrical Code, the underwriters' specifications and any local or State code which may apply in your district. If the contractor knows that the job is to be inspected before payment is made, he will take special pains to avoid an inadequate or unsafe wiring installation. . . .

So: Don't Forget the Inspection.

A THREE-WIRE SYSTEM

Wiring begins with the general service installation. This brings the power from the high line to the point where it is distributed to the house and other buildings. It includes the meter, the main switch and the fuses (or circuit breakers) which act as a safety valve when something goes wrong. Up-to-date farm electric service generally comes in over a three-wire system which makes it possible to have either 115 volts or 230. You use 115 volts for lighting and the operation of small appliances and 230 volts for heavy duty equipment such as an electric range or water heater and the larger motors.

Even though you do not now expect to install any of these heavy-duty appliances, it is far better to provide a three-wire system from the start. Converting a two-wire layout to a three-wire is not merely a matter of stringing another wire; the whole general service installation has to be done over.

But whether you decide upon a two-wire system or a three, be sure you have the installation heavy enough to do the work and more.

WIRING THE FARM HOME



MANY OUTLETS SAVE TIME AND EFFORT

Plenty of outlets properly located is the key to permanently satisfactory house wiring. This applies as well to convenience outlets (where you plug in appliances) as it does to switches and to lighting fixtures. You want to be prepared not only for the refrigerator, the washing machine, the electric iron and the radio, but also for such additional appliances—insofar as you might desire them later—as the vacuum cleaner, the food mixer, the percolator, toaster, and waffle iron, the curling iron, the immersion heater, the heating pad, the milk-bottle warmer, the exerciser, the violet ray machine, hair dryer, health lamp, and electric razor. There are over 200 things electricity can do on the farm and in the farm home. It waits only for your orders, and the equipment with which to work.

STEP 1

APPROVED

DOUBLE OUTLETS FOR CONVENIENT SERVICE

Double convenience outlets, permitting two appliances to be operated at the same time, help make the wiring system flexible. Since the average small appliance has a 6-foot cord, convenience outlets should not be more than 12 feet apart.

It never pays to have cords running across doorways or under carpets. They wear out quickly and give trouble. Scrimping on convenience outlets is as poor a way to save money as not buying quite enough material for a dress. And don't forget to include heavy duty outlets and special circuits for the electric range and the water heater.



SWITCHES NEAR DOORS AND STAIRWAYS

Switches for lights should be near the door and placed so they will not be hidden when the door is open. If a room has more than

one door, it is a good idea to have a switch at each one. It saves stumbling around in the dark. Another good place to have two controls is on the lights on stairways. You will want to be able to turn them on and off at the top or bottom. And, of course, the light in the basement or attic should be controlled from beside the basement or attic door. Many farmers have three control points for the yard lights: At the back door, at the barn and beside the bed in the main bedroom.

Lamp sockets that hang down from the ceiling are unsatisfactory and dangerous and should never be used except in special cases where proper overhead connections are provided. Such a case is the laundry where it is desirable to keep cords off the wet floor. Appliances such as toasters, vacuum cleaners, and curling irons should never be plugged into a lamp socket; they belong in convenience outlets.



WHEN LOAN CONTRACT IS

SIGHT IS PRICELESS, LIGHT IS CHEAP

Lighting is the most immediate and obvious of all the benefits of electricity on the farm. It is so obvious that it is apt to be overlooked, yet good lighting is the secret of long-continued good eyesight. And everyone knows that eye strain in childhood is likely to mean poor sight in later years. When you select the lighting fixtures for the various rooms in your house, be sure you install the proper size lamp bulb in each fixture. Remember that one 100-watt lamp uses no more electricity than two 50-watt lamps do, yet it gives out 25 percent more light. Be equally sure you have enough lamps for all purposes. You should never have to work or read in your own shadow.

A good general practice is to provide an outlet at the center of the ceiling (don't forget the porch) and to rely on table lamps or wall brackets at points where especially

good illumination is required. The living room table and the bedside table usually call for table lamps; decorative wall brackets over the mantel in the living room and over the sideboard in the dining room often help; wall brackets on either side of the bathroom mirror and the bedroom dressing table provide the necessary strong illumination for close work; and a wall fixture over the sink or work table in the kitchen pays its way. So do lights in all goodsized closets, though these are usually operated by a chain pull instead of a wall switch. It goes almost without saying that all lights should be shaded so that you never have to stare directly into the lamp.

YOUR WALLS MAKE GOOD REFLECTORS

There is now available a new type of lighting unit designed by the Illuminating Engineering Society (IES) and known as the "Better Sight" lamp. It comes in floor, wall, and table models and has an open top to provide a generous amount of indirect light for general illumination. A diffusing glass provides a soft light for specific tasks.

One last thing to remember in calculating your illumination is that the color of the walls and ceilings has a marked effect on the amount of useful light available in a room. Light colors are the best reflectors while dark shades absorb light.



APPROVED

WIRING THE OTHER FARM BUILDINGS

Adequate capacity—a broad highway—is of the utmost importance in the wiring, fuses, and switches for the other farm buildings. Without that adequate capacity, determined by a careful estimate of both your present and your future needs, your installa-

tion will not give you the complete service you demand. Remember that most farm-yard and barn uses of electricity are intended to help you make money; your estimates of future use should be even more generous than in the house.

Detailed specifications relating to electrical installations are contained in the National Electrical Code and should be carefully followed throughout by the electrical contractor. It is advisable to draw a rough floor plan of each of your farm buildings and to indicate, with the help of the electrical contractor, the number and position of lighting units, convenience outlets, switches and the special wiring needed for the operation of motor-driven appliances and the larger motors.

LIGHT FOR ALL TASKS, OUTDOORS AND INDOORS

The farmer who has been getting along with the light of a single lantern may feel that one electric light is sufficient for each room or space. But to plan on such limited lighting is to forego opportunity. Generous lighting is just as much a step forward in the farm buildings as it is in the house. Another thing to keep in mind is the fact that the lantern is carried from place to place; electric lights should be available at all these points. Standard dome and shallow dome reflectors should be used to cut down glare and direct the light where it is wanted.

Wiring for motors should be installed as specified in detail in the National Electrical



WHEN LOAN CONTRACT IS

Code. The specifications should be followed to the letter, both in wiring for stationary motors and in providing outlets for a portable motor.

A dairy barn demands better than average lighting because of the need for cleanliness—an important factor in keeping the bacteria count down. Where the dairy barn has the usual arrangement of three alleys, lighting outlets should be installed 10 to 15 feet apart along the center of each alley. For the care of young calves it is desirable to place an extra light over each box stall unless one of the alley lights comes directly opposite.

In a barn with solid stall partitions the lights should be spaced to come opposite alternate partitions.

BARN AND YARD OUTLETS FOR READY USE

There should be convenience outlets for the electric clippers and portable milking machines if these are likely to be used. An outlet for every five stanchions will make long cords unnecessary. The outlets should be on separate circuits from those which supply the lights. Where a pipe line milking machine is to be installed, one outlet for every ten stanchions will usually be found adequate for other purposes. It is a good idea to install the outlets at a level higher than the cows' backs, thus protecting the outlets and keeping the cords from being trampled on the ground.

The milk house is another building where good lighting is essential. One overhead light per room with a dome reflector and a



100 to 150 watt lamp will usually suffice. Of course, there should be a switch beside the door. Permanently installed motors should be permanently connected and convenience outlets should be provided for portable motors and appliances.

Lighting in the hen house increases winter egg production by extending the daylight

STEP 1

APPROVED

period both morning and evening. A switch which may be turned on and off by hand (or better still, a time clock) should be included. Shallow dome reflectors placed against the ceiling and spaced 10 to 15 feet apart will insure good distribution of light.

Special outlets should be provided for the electric brooders and for the operation of motor driven equipment in the feed room.

LIGHT TO CUT SHADOWS IN SHOP AND YARD

In lighting a small shop it is important to provide good illumination over the work bench, the grindstone, the forge and anvil and whatever other implements there may be. If the shop is large, some general illumination may also be necessary. Of course, convenience outlets should be provided for the operation of small motors and these outlets should be on a separate circuit.

Finally, there is yard lighting. From the point of view of convenience and protection, this is one of the most important uses of electricity on the farm. Brackets may be attached to the sides or corners of buildings and should be set high enough to insure a wide distribution of light. If a distribution pole is available a powerful lamp attached to the pole may take the place of several smaller lights. Switches for the yard lights should be located at the kitchen door, at the barn or garage and in the main bedroom.

AUTOMATIC ELECTRIC WATER SYSTEMS

Running water means more than any other single modern convenience. It means freedom from pumping, lifting, and lugging. It makes sanitation easy and dish washing almost a pleasure. A toilet and a bathtub and a convenient laundry also require running water.

An electrically driven pump is the heart of a pressure water system.



WHEN LOAN CONTRACT IS

WATER IS A GROWING HABIT— PROVIDE FOR THE FUTURE

Regardless of make, pumps are divided into two classes—shallow well and deep well, with the deep-well installation required when the distance from the bottom of the pump to the water is more than 22 feet. Expert advice may be had free of charge from the representatives of the various pump manufacturers, but just as in planning your wiring, it is more economical to plan not only for today, but for the future, in installing a pressure water system. Many people have had to junk a pumping system and start all over again after they became accustomed to running water, for running water has a way of creeping into your habits. A year from now you may easily find yourself demanding twice the capacity you now think sufficient.

A PRESSURE SYSTEM FOR RAPID FLOW

Water systems require storage tanks of either the overhead gravity type or the pressure type. The pressure type is now considered much better. It consists of an air-tight tank with a cushion of air at the top. Compression of the air cushion forces the water through the pipes. The air cushion takes up about one-third of the tank space, so do not calculate on getting 500 gallons of water from a 500-gallon tank.

Water supply is calculated at so many gallons per hour. Where water is required



for a kitchen sink, a toilet, lavatory and bath, laundry tubs and barn (where it is used for hosing the floor and watering the stock) a capacity of between 300 and 500 gallons per hour will be needed. Water systems may be purchased at ratings of 200 to 5,000 gallons an hour. Of course, the extent of your source of supply will effect the ratings somewhat. Representatives of pump manufacturers can advise you on your own special problems.

FOR FIRE PROTECTION, A RESERVE SUPPLY

One last thing to consider in planning your water system is fire protection. Sufficient reserve capacity to insure a good stream of water over a considerable period of time may pay for itself many times over in a single hour.

STEP 1

APPROVED

PLAN AHEAD FOR FUTURE USE

THERE are over 200 uses for electricity on the farm. Use this check-list to provide adequate wiring for today's needs and the many uses you will find for electricity in the future.

✓ Check with pencil the electrical services you are reasonably certain can be employed to advantage on your farm, today and in the future. Then make sure your contractor installs sufficient wiring, outlets, and switches to take care of these demands.

Household Equipment	Household Equipment—Con.
Air-conditioning	Radio sets
Bath cabinet	Ranges
Battery charger	Razor, electric
Burglar alarms	Razor-blade sharpener
Call bells	Reducer rolling pin
Chafing dish	Refrigerators
Cheese maker	Sander
Christmas-tree lights	Sawing firewood
Churns	Sausage grinders
Cider press	Sewing machines
Clocks	Stokers
Cooker	Sump pump
Corn popper	Thermostat
Croup kettle	Tie presser
Dishwasher	Toasters
Door bell	Toys
Door latch	Vacuum cleaner
Door (garage) operator	Waffle iron
Dryer, hair	Washing machine
Electric blanket	Water cooler
Electro-therapy	Water pump
Elevator	Vibrator
Exerciser	
Fans, kitchen ventilator	
Force-draft blower	
Fumigator	
Grills	
Hair clipper	
Heaters, auto engine	
Heaters, bottle	
Heaters, immersion type	
Heaters, unit	
Heaters, water	
Heating pads	
Hedge trimmer	
Hot plate	
Ice-cream freezer	
Ironer	
Irons, curling	
Irons, flat	
Lawn mower	
Lighting	
Massage machine	
Moving-picture machines	
Operating oil-burning furnace	
Ovens	
Pants presser	
Percolator	
Phonograph	
Piano and instruments	
Polisher, floors	

Farm Equipment and Machinery	
Aerators, milk	Irradiator, milk
Agitator, cooling-can	Irradiator, seed
Agitator, pasteurizer	Lathe
Agitator, starter-can	Lighting
Air compressor	Lighting, general
Air-conditioning, fans	Lighting, poultry houses
Air-conditioning, humidifier	Milking
Animal exerciser	Mill, flour
Baler, hay	Mixers, feed
Bottling milk	Oat sheller
Branding iron	Onion topper
Brooders	Neon lighting
Bunch tyer	Packing, fruit
Candlers, eggs	Packing, vegetables
Cattle stunner	Pasteurizer
Cauterizer, electric	Pea viner
Charging batteries	Peeling fruit
Cheese making	Planers, lumber
Chicken dressing	Plow and cultivator
Chopping, fruit	Polishing, fruit
Churning	Pollinator
Cleaning, containers	Pump jack
Cleaning, grain	Pump, liquid manure
Cleaning, hen roosts and	Pumps, barn supply
incubator trays	Pumps, irrigation
Cleaning, vegetables	Repair shop, band saws
Clipping, cows	Repair shop, circular saws
Clipping, horses	Repair shop, fixed drill
Cold storage	Repair shop, fixed grinders

Farm Equipment and Machinery—Continued
Conveyors, fruit and vegetables
Conveyors, grain, bucket-type
Conveyors, grain, fan-type
Conveyors, silo-filling
Cooling milk
Corn sheller
Coring, fruit
Cotton gin
Cream separator
Cutters, ensilage
Cutters, feed
Cutters, hay
Cutters, straw
Dehydrating, fruits
Dehydrating, vegetables
Doughnut kettle
Drying, feed
Drying, hay
Drying, manure
Drying, newly born stock
Drying, seed
Electric fences
Elevators, ton type
Forge blower
Foundation setter (Hives)
Frost-preventer fan
Fruit buffer
Grading, fruit
Grading, vegetables
Grinding, bone and shell
Grinding, feed
Grinding, fertilizer
Grinding, forage
Grinding, grain
Grinding, limestone
Grinding, meat
Grinding, soil
Hammers
Hay curer
Heating, buildings
Heating, poultry water
Heating, seed
Heating, soil
Heating, stock-tank water
Hedge trimmer
Hive warmer
Hoist, hay
Honey extractor
Ice-making machine
Incubators
Insect control, high-voltage
Insect control, portable
spray plants
Insect control, stationary
spray plants
Insect control, ultra-violet
Insect trap (fan)

WHEN LOAN CONTRACT IS

TIME PAYMENTS FOR FARM WIRING

REA is prepared to finance farmstead wiring installations. Loans are made to groups which undertake to handle farm wiring for a whole district at one time. They are not made to individuals. The group lends the individual farmer up to 80 percent of the cost of the job with repayment in semiannual installments spread over periods up to 5 years. The payments may be scheduled to coincide with the peak periods of farm income. The REA loan bears an interest rate of less than 3 percent a year on the unpaid balance, while the borrowing organization is entitled to charge the individual farmer an additional 3 percent a year on the unpaid balance to cover its expense in handling the loans. Wiring installations are made by independent electrical contractors from plans and specifications approved by REA. Contracts for wiring groups of farms are awarded on the basis of competitive bids. Wiring loans may include service extensions beyond the limit allowed as part of the distribution line under standard REA loans.

Similar loans are available to finance plumbing and water pressure systems both in the farm home and other farm buildings. A bathroom installation of three fixtures—bathtub, lavatory, and toilet—may be financed, a kitchen sink, and unless otherwise provided for, a pressure tank and pump.

New customers on non-REA lines are also eligible for loans.

STEP 1

APPROVED

A

NEWS STATEMENT 1

STEP 1

(Note.—Your local newspaper editor wants news of project developments. In most instances he will prove able and willing to help you in publicizing project meetings and announcements. Keep him informed. For example, when you announce the execution of the Loan Contract to your customers, that's news. The editor will want it—perhaps in the form suggested below.)

Actual rural electric line construction will begin in (NAME OF COUNTY) within the next 2 months, predicted (NAME OF SUPERINTENDENT), superintendent of the (NAME OF COOPERATIVE), in a letter to prospective customers announcing the execution of a Loan Contract between the cooperative and the Federal Government.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

We knew what we wanted, and we stuck together until we got it. We are going to have electricity. I am proud to announce that the Loan Contract has been executed whereby the Federal Government through the Rural Electrification Administration will lend us (AMOUNT OF LOAN) to construct our project.

Now we are ready to start work. The new electric lines that will soon be built will serve our community for many, many years to come. With our

long-sought goal so close at hand, however, we cannot afford to make many mistakes. From now on it will pay us to proceed slowly and build carefully.

The next few weeks will be busy weeks. There will be legal problems to clear up; plans and blueprints must be made. We have to select a contractor to build the lines. This work must be done and since it will probably be done quietly, without fanfare, there may be times when progress seems very slow. Impatient as we are for electricity, these next few weeks may be hardest of all.

REA assures us that the construction crews will be here in about 2 months. Shortly afterwards the first of us will begin using current from the new lines.

We are definitely going to have electricity. Now is the time to plan our wiring, decide on what appliances we want first, make provisions for hooking up to the line as soon as it comes. In this way we will get the full benefits of electricity at the beginning.

Yours very truly,



WHEN LOAN CONTRACT IS

STEP 1

APPROVED

B

LETTER 2

STEP 1

(Note.—Mail Letter No. 2 about one month after Letter No. 1. Enclose leaflet on adequate wiring, "Dollars in Your Pocket.")

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

Since I last reported to you, our rural-electrification project has been making real progress. Our engineer, Mr. (NAME OF ENGINEER), has prepared construction specifications for our new lines and has asked contracting firms to bid on them. These bids will be opened on (DATE FOR OPENING BIDS).

REA experts have examined the specifications carefully and found them to be entirely adequate. By following them, the construction firm, to be selected by competitive bid as above, will build sturdy, serviceable lines. They will bring us electricity—yet they will not be more expensive than we can afford.

As soon as the bids are opened Mr. (NAME OF ENGINEER) and REA will examine them to be sure that the bidders have followed specifications. It will probably take a couple of weeks to get the construction contract executed and approved by Administrator John M. Carmody in Washington.

Then the contractor will be notified to start work at once. Within a few weeks we should see some actual construction activity right here in our community.

Some projects have been held up by difficulties in obtaining rights-of-way permission from property owners for the lines to cross their land. Our loan from REA is for building lines. None of the money can be used for buying rights-of-way.

Since it is to the advantage of all of us to build the lines efficiently and as inexpensively as possible, I hope that you will sign a right-of-way agreement readily when our representative calls on you. The form has been carefully checked by our attorney, Mr. (NAME OF ATTORNEY), and REA lawyers. It is not a deed to your land, nor is it a mortgage of any sort. It merely permits the line to be built on your property, and it permits us to service the lines after they are built.

You will need the short time left before the current is turned on to complete your wiring and make definite plans for the appliances you wish to install right at the start. We have a great deal of information about wiring and appliances here at the office (GIVE OFFICE ADDRESS).

Remember, this is your office. Come in and see what we have for you. Go over the maps, read the pamphlets we have available, let us help you plan to use electricity abundantly from the beginning.

Yours very truly,

WHEN LOAN CONTRACT IS

STEP
1

APPROVED



Dollars
in your pocket

ADEQUATE WIRING — NOW

SAVES DOLLARS, TIME, LABOR — LATER

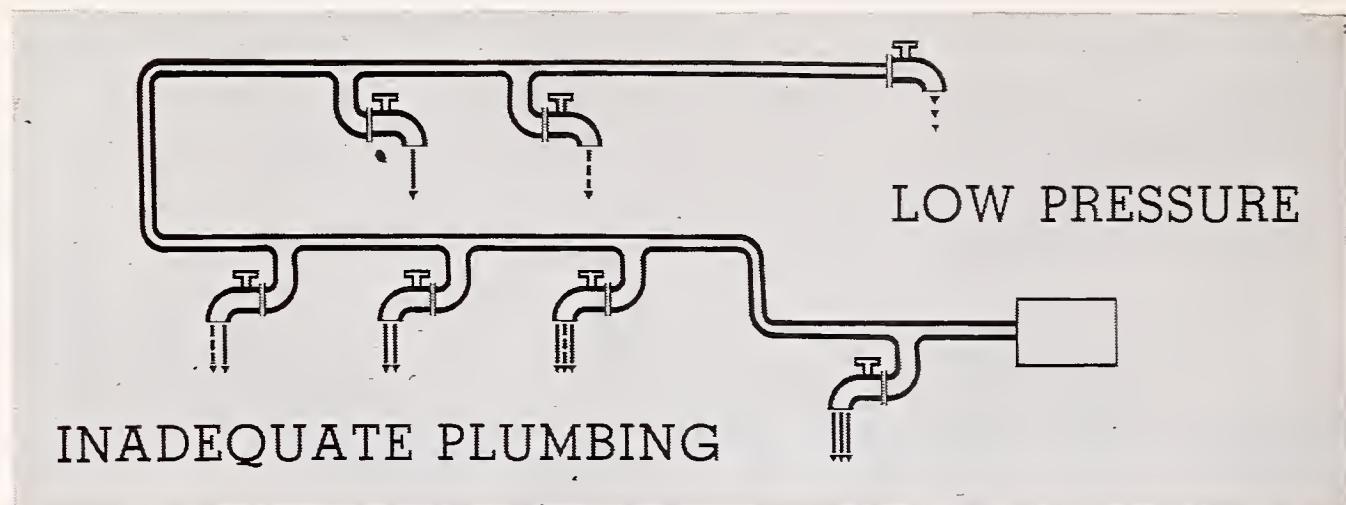


IT'S dollars in your pocket to wire your home and farm adequately at the start. It costs less to wire for all future needs now than to add to your wiring system at a later date. • Electricity is unequalled as a time and labor saver. And with it come many opportunities to increase production and profits on the farm. But electricity won't bring you either its savings or profits if hampered by the false economy of not enough wiring. Ample provision must be made in the wiring system for the work-load you are

going to ask electricity to shoulder. This means sufficient wire, outlets, and switches for all normal needs, and for heavy work heavy wires and outlets at the right places about the home and farm. • Even if you are not going to use heavy appliances in the beginning, it's the best economy to provide for their use from the very start. Carry this margin of safety in your electrical investment. In time, and labor saved later on—and in dollars both made and saved—you will more than offset the initial cost.

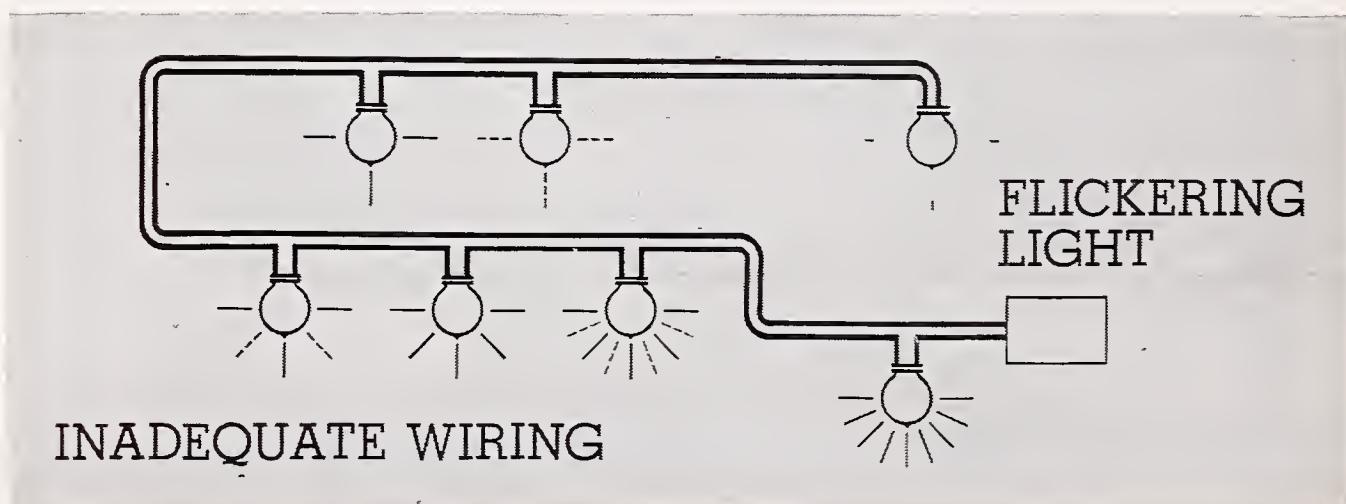


WHEN LOAN CONTRACT IS



Water pipes will not stretch. Regardless of the amount of water you need, the size of the pipe and the number of faucets limit the amount

of water you get. Too often service at the last faucet becomes a mere dribble because of many demands on a single, small pipe.



Like plumbing, overloaded house and farm wiring takes its toll in dimmed lights, inefficient appliances, and poor electric service in general. Adequate wiring is safe, protects from

overloads, and avoids inconvenience and delay. A single circuit cannot transmit sufficient power for heavy appliances. Nor may all appliances be used at once.

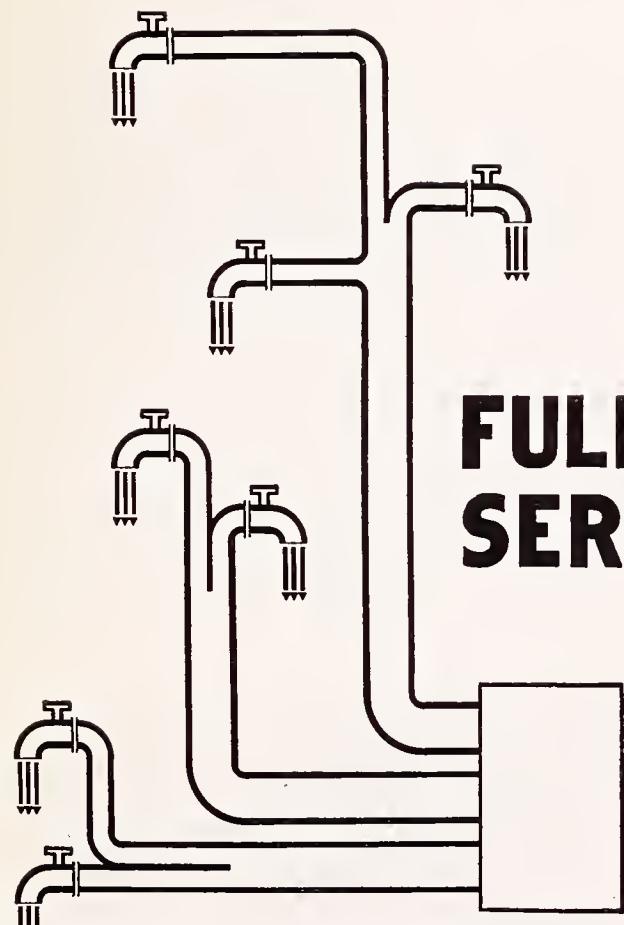
THREE POINTS TO REMEMBER

Adequate wiring means:

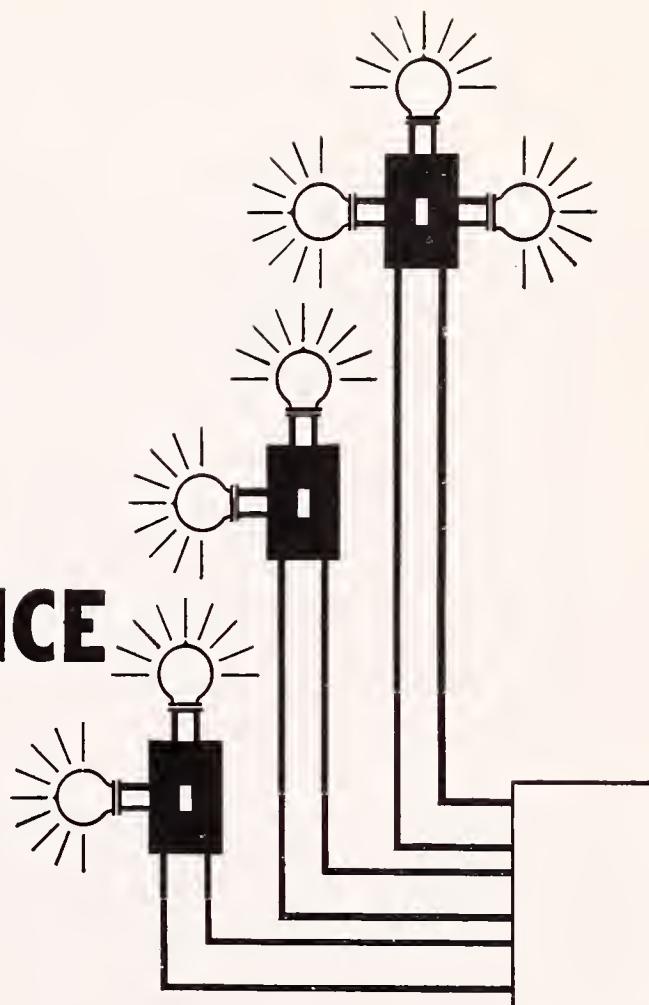
1. A large service entrance and multiple circuits in the right wire size.
2. Sufficient outlets and switches—conveniently located in all farm buildings.
3. Heavy-duty circuits and outlets for the range, water heater, and larger motors.

STEP 1

APPROVED



ADEQUATE PLUMBING



ADEQUATE WIRING

In the diagram note that loads are balanced. The modern plumbing system delivers full pressure at every faucet. Likewise the wiring system is prepared for the exceptional moment when all appliances, large and small, are in use at the same time.

The wires over which electricity travels may be compared to a system of highways. The roads must go to the exact spots where power will be most helpful. In addition, the roads must be broad enough and heavy enough for both heavy-duty and passenger-car traffic.

Electricity should come from the power line to your farm over three wires, the service entrance. After passing through the meter, it

goes to a central control or panel box. This control box contains overload protectors which automatically cut off the current before overloads cause damage. The control box must be adequate for its duties. Also, as shown by the diagram on this page, the various circuits of the wiring system should extend independently from the control box to provide for balanced loads in the farm buildings and home.

WHEN LOAN CONTRACT IS



DOUBLE OUTLETS. Double convenience outlets provide for double service. Since it is almost impossible to foresee all situations where you will wish to use two appliances at once, it is a good rule to have a minimum of two, properly located, double convenience outlets in all rooms. A sufficient number of double outlets in shop, dairy, and other farm buildings, help to cut working time in half.

THREE-WAY SWITCHES. You will want conveniently located switches for lights. A rule to remember is to place switches so that tasks are lighted before you come to them. You should be able to light your way up and down stairs, to the barns, and in and out of all places where work is done. Three-way switches offer control at either end. See that you have a number of 3-way switches—in the right places!



HEAVY-DUTY NEEDS. The electric range, the water heater, and any motor above one-half horsepower require special heavy-duty wiring and outlets. It is cheaper by far to have these heavy-duty circuits installed with the other wiring. Even if you don't use such equipment for several years, it's money saved to have the job done now. When the time comes you will be dollars ahead on wiring and ready for the

extra-savings-from-extra-use provided for in most charges for current.

ELECTRICITY IS A GROWING HABIT. The more you live with it the more you discover its innumerable services and economies. But your soundest economy can be your first. Provide adequate wiring now to get the most benefit from electricity in the future.

FOR DETAILS—CONSULT YOUR ELECTRIC SERVICE OFFICIALS, YOUR EXTENSION WORKERS, OR WRITE DIRECT TO REA

STEP 1

APPROVED

B

NEWS STATEMENT 2

STEP 1

(Note.—Issue Statement No. 2 or call Editor at time Letter No. 2 is mailed.)

Specifications have been approved and bids called for the construction of the rural electric lines of (NAME OF COOPERATIVE), declared (NAME OF SUPERINTENDENT), superintendent, in a letter to members and prospective customers of the cooperative. The actual construction firm is selected by competitive bid.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

Since I last reported to you, our rural electrification project has been making real progress. Our engineer, Mr. (NAME OF ENGINEER), has prepared construction specifications for our new lines and has asked contracting firms to bid on them. These bids will be opened on (DATE FOR OPENING BIDS).

REA experts have examined the specifications carefully and found them to be entirely adequate. By following them, the construction firm, to be selected by competitive bid as above, will build sturdy, serviceable lines. They will bring us electricity—yet they will not be more expensive than we can afford.

As soon as the bids are opened Mr. (NAME OF ENGINEER) and REA will examine them to be sure that the bidders have followed specifications. It will probably take a couple of weeks to get the construction contract executed and approved by Administrator John M. Carmody in Washington.

Then the contractor will be notified

to start work at once. Within a few weeks we should see some actual construction activity right here in our community.

Some projects have been held up by difficulties in obtaining rights-of-way permission from property owners for the lines to cross their land. Our loan from REA is for building lines. None of the money can be used for buying rights-of-way.

Since it is to the advantage of all of us to build the lines efficiently and as inexpensively as possible, I hope that you will sign a right-of-way agreement readily when our representative calls on you. The form has been carefully checked by our attorney, Mr. (NAME OF ATTORNEY), and REA lawyers. It is not a deed to your land, nor is it a mortgage of any sort. It merely permits the line to be built on your property, and it permits us to service the lines after they are built.

You will need the short time left before the current is turned on to complete your wiring and make definite plans for the appliances you wish to install right at the start. We have a great deal of information about wiring and appliances here at the office, (GIVE OFFICE ADDRESS).

Remember, this is your office. Come in and see what we have for you. Go over the maps, read the pamphlets we have available, let us help you plan to use electricity abundantly from the beginning.

Yours very truly,

WHEN LOAN CONTRACT IS

LOAN

LOAN CONTRACT

Contract of loan is a written agreement between two parties.

What is a loan? A loan is a sum of money given by one person to another person for a period of time. The person giving the money is called the lender and the person receiving the money is called the borrower. The lender expects to be repaid the principal amount of the loan plus interest.

STEP 1

APPROVED

C

INSTALLATION LOANS

STEP 1

THE REA PROGRAM FOR FINANCING WIRING AND PLUMBING

THE Federal Government in its rural power program is trying to clear every obstacle. In addition to loans for new power line construction, REA is financing adequate and proper wiring, plumbing, and lighting installations. Under the REA Financing Program loans will be made to REA borrowers, who will in turn finance installations for individual members. To put the Program into operation it is necessary for the local board of directors to vote its adoption. If adopted, there are several methods for developing the Program. The Group Bidding Plan is explained in detail and is recommended by REA as the least complicated, most economical and practical method. Its adoption will require a second vote by the board of directors.

ORDER OF BUSINESS FOR MEETING OF BOARD OF DIRECTORS ON WIRING, PLUMBING, AND LIGHTING FINANCING PROGRAM

1. Read following statement regarding REA Financing Program.
2. Vote on adoption of Financing Program.
3. If program is adopted, read statement on suggested Group Bidding Plan of financing.
4. Vote on adoption of Group Bidding Plan.

STATEMENT REGARDING REA FINANCING PROGRAM FOR WIRING, PLUMBING, AND LIGHTING

As every project official well knows, the proof of rural electrification is not in the construction of lines, not in the miles of poles put up, or wires strung, or transformers installed. It is rather in the amount of electricity used by the new customers after the current is turned on.

Adequate wiring is the all-important basis for successful load building. Only after his farm is adequately wired can the customer receive the full benefits from electric power. And from the point of view of the project official, only then can a satisfactory and profitable load be built on the lines.



WHEN LOAN CONTRACT IS

Perhaps many of the farmers along your lines would be good customers for electricity, except that they lack sufficient immediate cash to install adequate wiring. Others may be able to wire for lighting, but cannot afford to install wiring to provide power for other uses of electricity, which would result in additional profits both to them and to the project.

In order to develop the full possibilities of rural electrification, REA is prepared to finance farmstead wiring, plumbing, and lighting installations. In many instances this will permit you to add additional customers, who otherwise would be unable to wire their farms by the time the lines are energized.

Loans are made to REA borrowers, who in turn will finance installations for their individual members. Loans are not made to individuals. The borrower lends the customer up to 80 percent of the cost of the job. Loans are repaid to the Government in semiannual installments spread over periods up to 5 years. The interest rate is 2.88 percent on unpaid balances. Payments may be scheduled to coincide with the peak periods of farm income.

In relending this money to your customers, REA recommends that you charge 6 percent interest on unpaid balances. The difference in the interest rates will pay for your expense in carrying the accounts, bookkeeping, and collecting of bills. It is good practice to set aside 1 percent of the difference as a fund to care for delinquencies or defaults that may occur.

Your loans to customers may be made on terms to suit their convenience, so long as the maximum repayment period does not exceed the period for which the money is loaned to you.

To determine the amount of money required to finance such installations on your project, it will be necessary to conduct a survey of each farmstead along the route of your lines. The method of taking such a survey is explained in the Manual of Wiring and Plumbing Procedures, page 5.

REA security for the loan will consist of promissory notes signed by your customers upon completion of the installations. These will be endorsed over to the Government by the cooperative.

All work—wiring, plumbing, and lighting—must meet the requirements of REA specifications and be inspected and approved before it can be financed or connected to your lines.

Details of specifications and method for applying for REA loans are given in the Manual of Wiring and Plumbing Procedures.

*Adoption of the REA Financing Program for wiring, plumbing, and lighting
requires a vote of the board of directors*

STEP 1

APPROVED

STATEMENT ON THE GROUP BIDDING PLAN

AFTER the directors have decided to take advantage of the REA Financing Program, a procedure must be worked out to make the financing effective. The following procedure, called the Group Bidding Plan, is recommended by REA as simple, economical, and feasible.

The Group Bidding Plan is simply a systematic program for wiring a number of farmsteads at one time by one contractor. The contractor is selected by competitive bidding. The advantages of the plan are that wiring is completed quicker and the average job is less expensive because of savings in materials and labor that can be achieved through mass construction.

The information necessary to prepare the contractor's proposals may be secured in the same survey needed for the financing program. The total number of customers who desire to get their wiring done by group bidding is found. They are then divided up into groups of 50 or more, corresponding to townships or voting districts or some other sectional division.

The survey blanks show the number of outlets and amount of wiring to be done on each farmstead. These are totaled for each group and invitations to bid are sent out to contractors. All contractors bid on all groups in accordance with one standard set of wiring specifications prepared by REA.

Contractors bid on unit prices for the amount of work indicated by the survey. Bids are made on four types of wiring—knob and tube, nonmetallic sheathed cable, armored cable, and conduit. The customer may select whichever type of wiring he desires.

The work will be given to the lowest responsible bidder on each group, and the successful contractor receives all the survey forms for his group. He goes over each farmstead in the group listing the amount of work to be done. It is at this point that the customer will find the REA wiring check list useful. The total cost of the work for each house is calculated separately from the unit prices quoted by the contractor.

The contracts with the individual customer are approved by the project superintendent and the contractor assembles and delivers the necessary materials to each farm. As the materials are delivered, the contractor collects a minimum of 20 percent cash from the customers. Customers who are using the financing program will also sign the note and customer's contract, indicating the terms of payment.

Upon completion of the work, the contractor must obtain a certificate of inspection and approval from the authorized inspector for his district. The contractor



WHEN LOAN CONTRACT IS

will pay inspection fees. The customer signs a certificate of satisfaction, stating that to the best of his knowledge the work is satisfactorily completed.

The contractor will present the project superintendent with the customer's note, customer's contract, certificate of inspection, and certificate of satisfaction. He will then be paid in cash by the cooperative within approximately 10 days.

Customers who do not wish to be included in the Group Bidding Plan may have their wiring installed separately. Such installations may be financed. The customer's order for work to be done is approved by the project superintendent and the contractor performs the work in the same manner as above.

Although lighting fixtures are not included in the REA specifications, they may be financed with the wiring. Contractors should urge the installation of approved fixtures that will give good lighting. Inexpensive fixtures of modern design may be obtained and should be carried in stock by the contractors.

In brief, the advantages of the Group Bidding Plan are:

1. The contractor will purchase materials in large quantities reducing his costs and lowering the price to the customer.
2. The contractor, having a number of farmsteads to be wired in a particular area, does not have to solicit business over a large area and saves considerable expense and time normally lost in traveling from job to job. This further reduces the cost to the customer.
3. The systematic wiring procedure assures the cooperative of quicker, more adequate wiring—which means more customers for power in the beginning and more revenue for the project.

Adoption of the Group Bidding Plan requires a vote of the board of directors

If the Group Bidding Plan is adopted by the board of directors the next step is to call a contractors' meeting to obtain full cooperation of contractors.

STEP 1

APPROVED

D

CONTRACTORS MEETING

STEP 1

PLAN FOR CONTRACTORS MEETING

As soon as the Board of Directors has met and if the group bidding plan was adopted, arrange for all wiring and plumbing contractors to meet with the Project Superintendent.

Suggested order of business for meeting

1. Obtain names of persons and firms present.
2. Explain utilization program outlined in this portfolio.
3. Explain REA financing program and group-bidding plan as described in statements read at Board of Directors meeting.
4. Discuss coordination of efforts of all contractors and adoption of group-bidding plan.



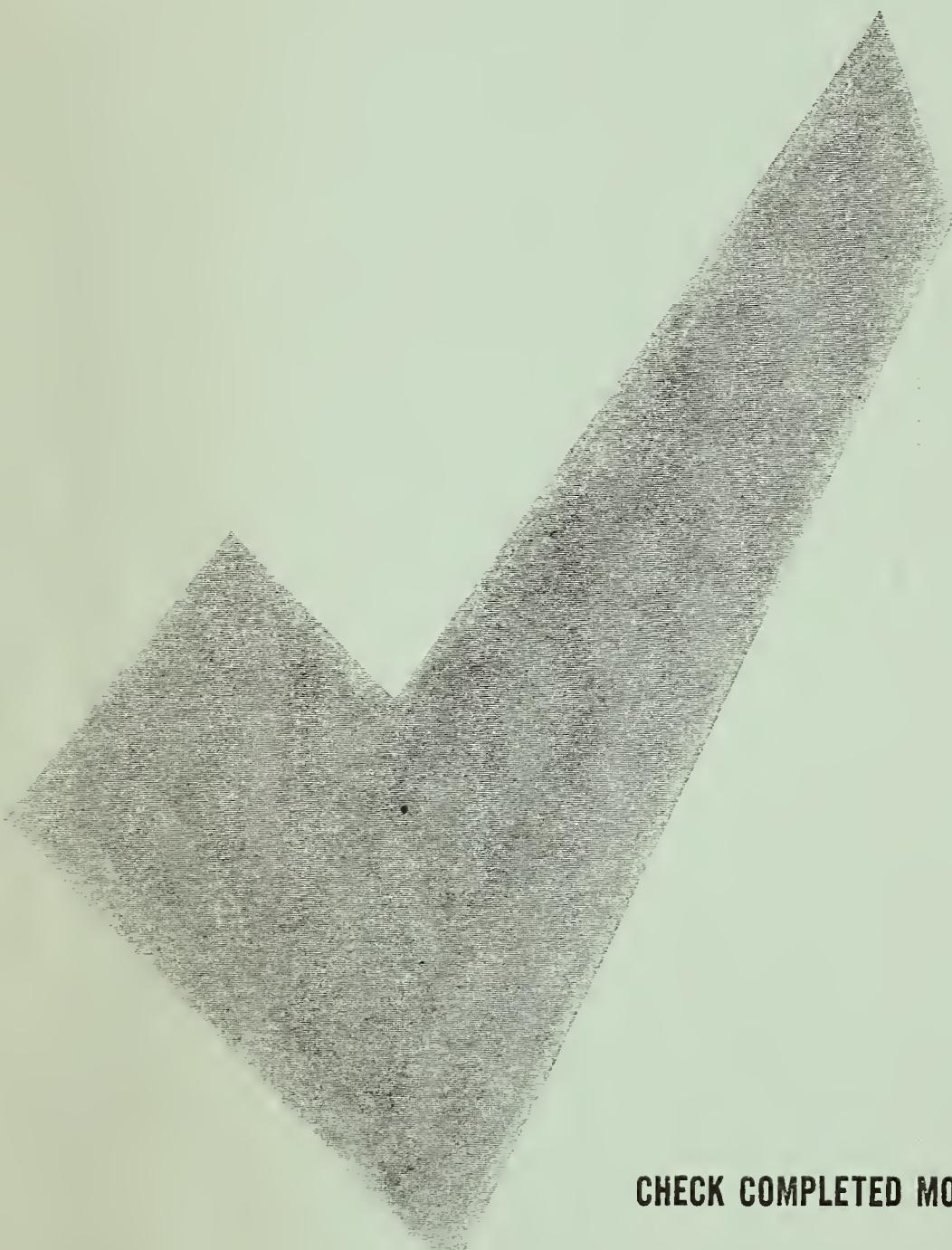
WHEN LOAN CONTRACT IS

STEP
1

APPROVED



WHEN CONSTRUCTION



CHECK COMPLETED MOVES.

- A. Mail Letter No. 3 on wiring, lighting, and plumbing, with leaflet, "Get This Better Satisfaction from Electric Light."
- B. Give out Statement No. 3 for newspapers.
- C. Place posters in electrical contractors', dealers', and general stores and other public buildings.

STEP
2

CONTRACT IS APPROVED

WHEN CONSTRUCTION CONTRACT IS APPROVED . . .

actual construction of the rural lines will follow quickly. By this time the wiring and plumbing survey should be completed and the project superintendent should know the extent of financing to be done . . . Posters for adequate wiring and good lighting are available from REA. These should be placed in prominent locations where they can be seen by many prospective users. Put them in store windows, electrical shops, and other frequently used public buildings. Every superintendent will need at least 50 copies of each poster to cover his territory . . . Constant stressing of adequate wiring by letter, newspaper announcements, meetings, and by word of mouth is needed to carry the program to all users.

GPO 14448

POSTERS

WHEN CONSTRUCTION



STEP
2

CONTRACT IS APPROVED

A

LETTER 3

STEP 2

(Note.—Mail Letter No. 3 as soon as Construction Contract is approved. Enclose leaflet "Get this Better Satisfaction from Electric Light.")

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

**EXTRA! CONSTRUCTION CREWS ORDERED TO START WORK!
WIRE YOUR FARM FOR ELECTRIC SERVICE NOW!**

John M. Carmody, REA Administrator, has just approved the construction contract and ordered the (NAME OF CONSTRUCTION FIRM) to start work immediately. It is only a matter of days until the digging of post holes is begun. After that the poles begin to go up, the wires strung, the transformers installed. Be ready for electricity as soon as it is turned on. Wire your farm—NOW.

The story of safe and adequate wiring should be told again and again. Poor wiring will be a constant handicap to you. You must have adequate wiring in order to get the fullest benefits from power.

REA has worked out suggestions and specifications for good wiring. We have complete information about it at the project offices at (GIVE COOPERATIVE ADDRESS). Come in and talk it over with us.

A drop cord with an electric bulb on the end is not good lighting. But you can have good lighting. Modern fixtures and lamps are not expensive. Here again we can help you with information on modern, approved fixtures and prices.

Electricity is a faithful servant. If you use it properly it can be persuaded to do almost any kind of work. Electricity will water your horses, it will wash the dishes, it will bake a cake, it will do the milking and then it will keep the milk pure and wholesome and clean so that you can get top prices for it at the creamery.

Don't cheat yourself with skimped wiring. Give electricity a chance to work for you and it will pay its own wages.

Yours very truly,

POSTERS

WHEN CONSTRUCTION



STEP
2

CONTRACT IS APPROVED

GET THIS *Better* SATISFACTION

FROM ELECTRIC LIGHT



GOOD LIGHTING NEED NOT BE EXPENSIVE BUT IT MUST BE PLANNED

Farm families who are just obtaining electricity have a real advantage when it comes to lighting. They need not put up with inferior and poorly designed lighting arrangements which "just grow." From the beginning they can have the better satisfaction of sensibly designed fixtures and modern lighting controls.

• This better lighting is no more expensive. With adequate wiring as a base it is within the immediate reach of all newly electrified farms. For today's lighting engineers have adapted themselves to the average pocketbook. Elaborate lamps and gadgets are eliminated

from their recommendations. There are a few simple principles to remember about shaded lights, outlets, and conveniently located switches. The necessary fixtures are obtainable almost everywhere and are remarkably low in price. • Through project officials REA is making detailed information on modern lighting available to farm families. Ask at your project office about the approved new equipment. You will be pleasantly surprised by its low cost. On the next pages are some of the main points to bear in mind when making lighting plans.

POSTERS

WHEN CONSTRUCTION

POINT 1. AVOID GLARE.—Glare is wasted light. Our eyes cannot use it to see with. Eliminate glare by using shaded lights and avoiding bare bulbs. Examples of modern fixtures designed to prevent glare are shown on this and the next page. Modern fixtures of the type illustrated are sensibly low in price. Lighting experts have adapted their design to your pocketbook as well as to your eyes and the need for adequate illumination in every room in the house.

POINT 2. HAVE PLENTY OF OUTLETS.—Flexibility and convenience in lighting depend a great deal upon the number and position of outlets. Double convenience outlets for plugging in any appliance or portable electric lamp enable you to have light where you need it. You should have a minimum of two double convenience outlets in all rooms.



INSTALL THESE SENSIBLE FIXTURES

Examine carefully the lamps and fixtures shown on this page. The five types illustrated represent basic equipment for every newly electrified farm. A complete lighting installation can be made by using these moderately priced, glareless fixtures.

The Illuminating Engineering Society (I. E. S.), a group of the foremost lighting authorities in the world, have designed modern lighting equipment to make seeing easier. Lamps and fixtures built to their specifications are low in price and have three features in common: A bowl under the shade hides the bulb, so that there is no glare. Light is softened and spread outward and upward, and the entire room is brightened. Sharp shadows and harsh lighting contrasts disappear. The shade is broad, so that the light is not narrowly confined. The bulb is big enough—at least 100-watt size—to furnish the abundant light we need for most kinds of seeing.

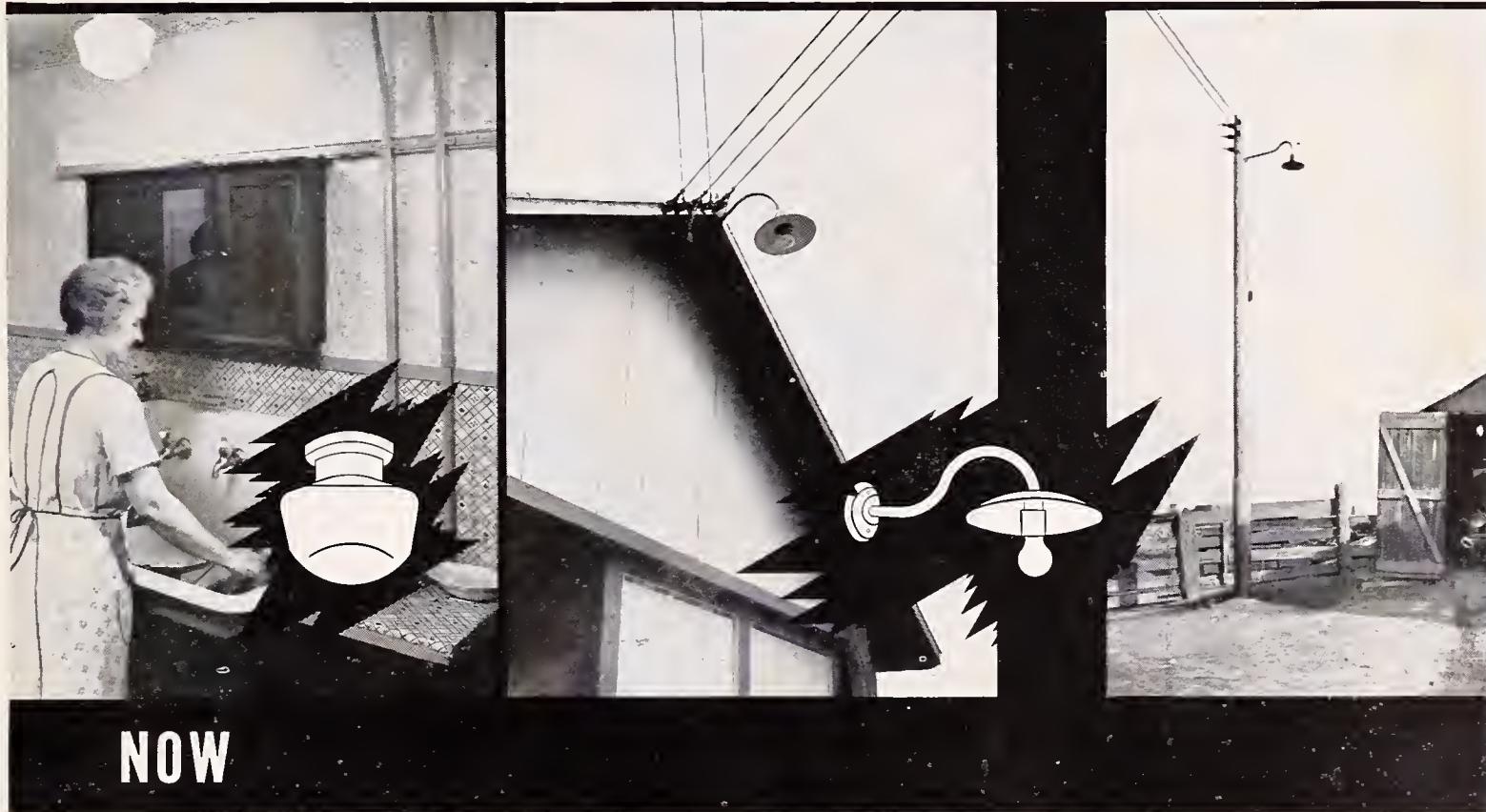
CEILING FIXTURES are used for general lighting, usually in such rooms as the dining and living rooms.

STEP 2

CONTRACT IS APPROVED

POINT 3. INSTALL SWITCHES AT CONVENIENT POINTS.—A good lighting installation is easily controlled. Place the controls or switches so that tasks are lighted before you come to them. For example, the principal light in any room should be controlled by a switch located near the door. Switches near doors save many steps.

POINT 4. HAVE ENOUGH LIGHT AT ENOUGH PLACES.—Plan the lighting for a room or building in line with the activities that go on there. All the light should not be concentrated at one spot. If lamps have to be shifted constantly in order to read the newspaper, or study, or practice at the piano, or if the entire family must huddle around a single reading lamp, there is not enough light at enough places. Make sure you have enough light.



NOW

PORABLE LAMPS are available in many sizes and types. If you can only have one at first, the table type illustrated is recommended.

PIN-IT-UP LAMPS are exceptionally convenient in all rooms where supplemental light is needed. They are easily hung like pictures on the wall, and operate from an ordinary convenience outlet.

THE CEILING GLOBE of the type illustrated may be used in the kitchen, hallway, porch, and pantry. It is practically a necessity in the kitchen, where the housewife spends so much of her time. Glare is eliminated, and light diffused evenly in all directions. There are no troublesome shadows.

THE YARD LIGHT is a help in farm work and furnishes protection. For barnyard lighting REA suggests the gooseneck type light with shallow-dome reflector, illustrated. A light of this type is built to take the weather. It will light the barnyard effectively if mounted at least 15 feet above the ground.

POSTERS

WHEN CONSTRUCTION

OUTLETS AND SWITCHES WILL INCREASE YOUR LIGHTING SATISFACTION



GOOD LIGHTING NEEDS THESE MODERN AIDS

Proper location of switches and outlets provides flexible control for lighting.

SWITCHES should be placed to light your way in and out of all places where work is done. The most convenient switch is the wall-toggle type. The most convenient location is about four and one-half feet above the floor, near doorways. Three-way switches, that will control the light from two places, should be used at the main stairway in the home. Other three-way switches are needed in rooms with two or more entrances and to control the yard light from the house and from the barns.

OUTLETS are necessary for present-day portable lamps. Plenty of outlets provide flexible lighting to fit various arrangements of furniture or special needs. A rule to remember is to have at least two properly located, double-convenience outlets in each room of the home and a sufficient number in barn and outbuildings.

Project Officials have information on sensible lighting and wiring. Your officials can help you select your fixtures. Ask them for aid in solving your lighting problem. Good lighting will bring you great satisfaction in years to come.

STEP 2

CONTRACT IS APPROVED

B

NEWS STATEMENT 3

STEP 2

(Note.—Issue Statement No. 3 or call Editor at time Letter No. 3 is mailed.)

John M. Carmody, REA Administrator, ordered the (NAME OF CONSTRUCTION FIRM) to start work on the rural electric lines of the (NAME OF COOPERATIVE), according to (NAME OF SUPERINTENDENT), superintendent, in a letter written to all members and prospective customers of the cooperative.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

**EXTRA! CONSTRUCTION CREWS
ORDERED TO START WORK!**

**WIRE YOUR FARM FOR ELECTRIC
SERVICE NOW!**

John M. Carmody, REA Administrator, has just approved the construction contract and ordered the (NAME OF CONSTRUCTION FIRM) to start work immediately. It is only a matter of days until the digging of post holes is begun. After that the poles begin to go up, the wires strung, the transformers installed. Be ready for electricity as soon as it is turned on. Wire your farm—NOW.

The story of safe and adequate wiring should be told again and again.

Poor wiring cramps your style. You must have adequate wiring in order to get the fullest benefits from power.

REA has worked out suggestions and specifications for good wiring. We have complete information about it at the project offices at (GIVE COOPERATIVE ADDRESS). Come in and talk it over with us.

A drop cord with an electric bulb on the end is not good lighting. But you can have good lighting. Modern fixtures and lamps are not expensive. Here again we can help you with information on modern, approved fixtures and prices.

Electricity is a faithful servant. If you use it properly it can be persuaded to do almost any kind of work. Electricity will water your horses, it will wash the dishes, it will bake a cake, it will do the milking and then it will keep the milk pure and wholesome and clean so that you can get top prices for it at the creamery.

Don't cheat yourself with skimped wiring. Give electricity a chance to work for you and it will pay its own wages.

Yours very truly,

POSTERS

WHEN CONSTRUCTION

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POSTERS

WHEN CONSTRUCTION



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TY OF OUTLETS,
CIRCUITS FOR
OF ELECTRICITY

REA UTILIZATION POSTER No. 1

POSTERS



WHEN WIRING PLAN AHEAD!

**PROVIDE PLENTY OF OUTLETS,
SWITCHES, AND CIRCUITS FOR
CONVENIENT USE OF ELECTRICITY**

STEP
2

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WHEN CONSTRUCTION



STEP
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POSTERS

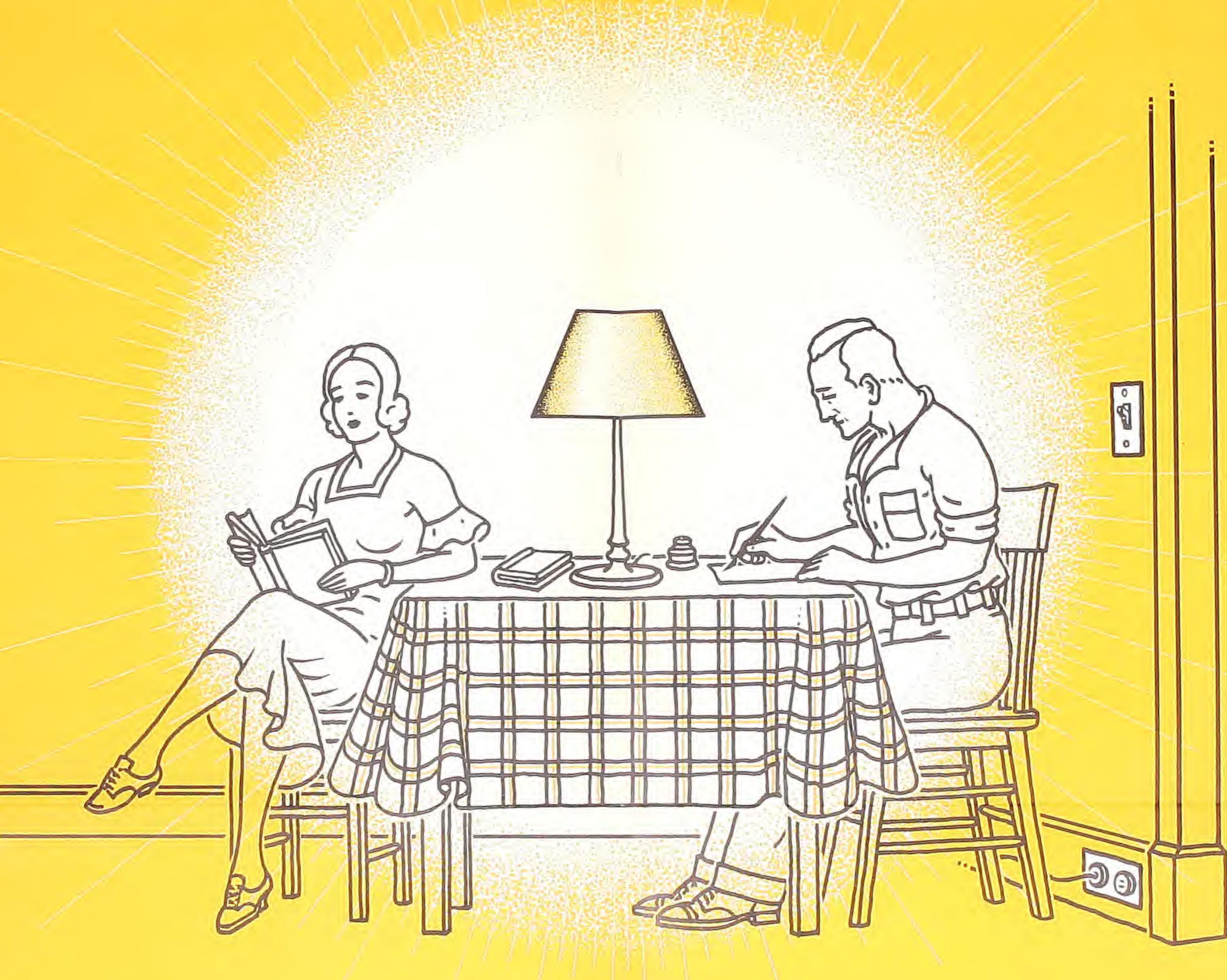
WHEN CONSTRUCTION



STEP
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POSTERS



PLAN YOUR LIGHTING FOR BETTER SEEING

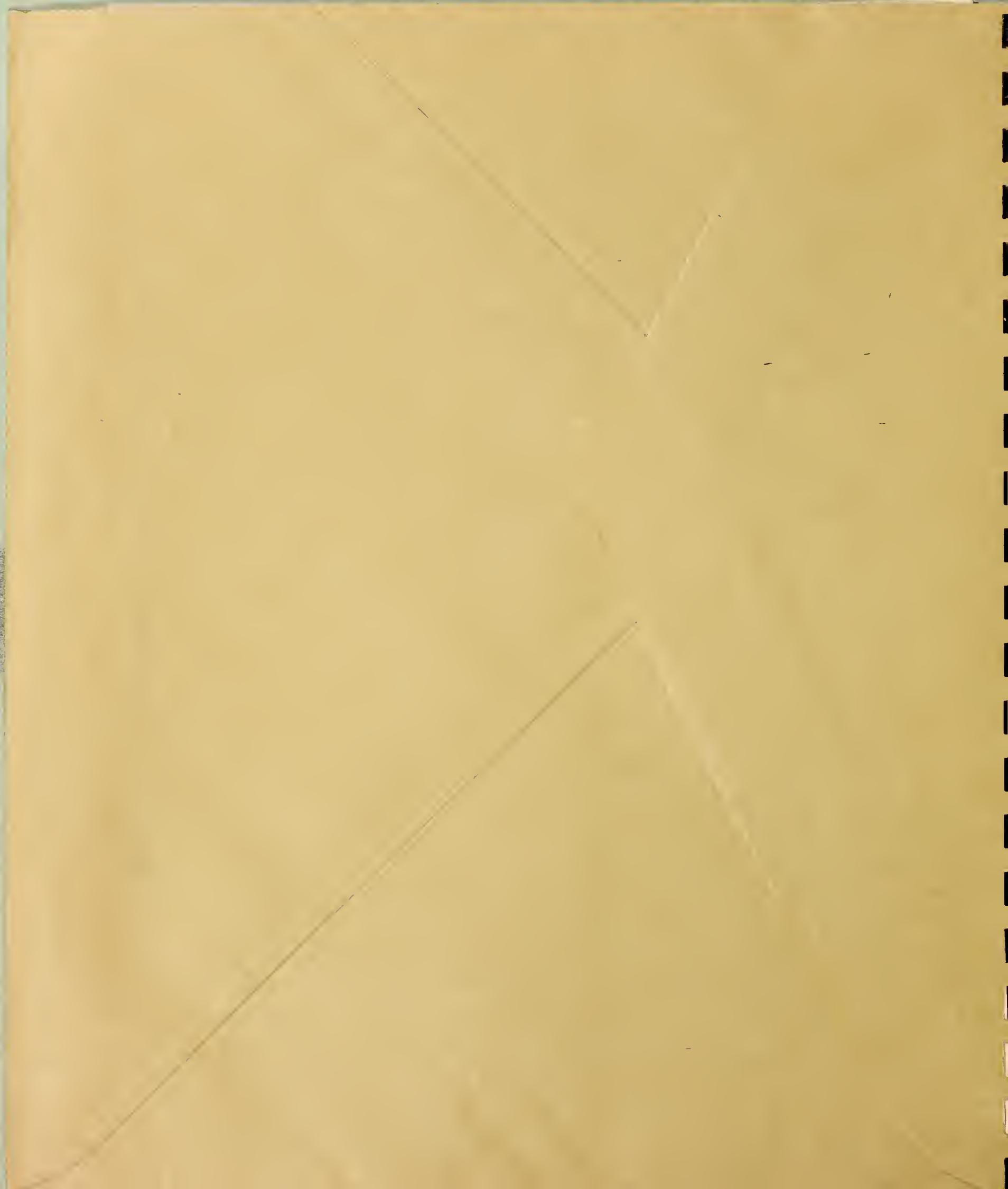
- 1. SHADED LIGHTS**
- 2. CONVENIENTLY LOCATED SWITCHES**
- 3. OUTLETS FOR PORTABLE LAMPS**

STEP
2

CONTRACT IS APPROVED

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WHEN CONSTRUCTION



STEP
2

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WHEN CONSTRUCTION BEGINS

- A. Mail Letter No. 4 with booklet, "Electrifying Your Farm and Home", and plumbing leaflet, "Good Plumbing More Than Pays for Itself." Give out Statement No. 4 for newspapers.
- B. Hold dealer meeting to launch appliance campaign. Supply membership list to all reputable appliance dealers. See plan for Dealer Meeting and Electric Home and Farm Authority statement on appliance financing.
- C. Hold group meetings to cover all project territory:
 1. Display posters at meeting.
 2. Explain wiring check-list, conduct of survey, and installation loans (Step 1). See suggested Wiring Address.
 3. Display REA film strips.
- D. Check number of houses wired and service contracts obtained against minimum number required to make project self-sustaining.



CHECK COMPLETED MOVES.

STEP 3

WHEN CONSTRUCTION BEGINS . . .

house and farm wiring should be under way so that users will be ready for electricity from the first moment it is turned on . . . The alert project superintendent, who is thinking ahead, has already made plans for appliances. The Federal Government is cooperating both with individual farmers and with dealers in providing the Electric Home and Farm Authority appliance financing plan . . . Widespread use of electricity can be obtained only when users, project officials, and dealers work shoulder to shoulder. The dealer should clearly understand the important part he has in the program . . . REA film strips are useful in presenting the advantages of adequate wiring, good lighting, and serviceable appliances. They contribute considerably to the enjoyment and educational value of group meetings.

GPO 14449



WHEN CONSTRUCTION BEGINS



STEP 3

A

LETTER 4

STEP 3

(Note.—Letter No. 4 is an invitation to meeting on wiring, lighting, and plumbing. For small projects a single meeting for the entire membership will be sufficient. For larger projects it is better to have several meetings at various project centers. Mail Letter No. 4 as soon as construction actually starts. Enclose booklet "Electrifying Your Farm and Home" and leaflet "Good Plumbing More than Pays for Itself."

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

Construction of our new rural electric lines began this morning when the (NAME OF CONSTRUCTION FIRM) moved its crews and machines to this part of the country and began work. Much of the material has already arrived, and poles, wire, transformers, and other equipment are on the way from many parts of the country.

Many questions have come up concerning wiring, lighting, and the other problems that you are facing in getting ready for power. The cooperative directors have scheduled a meeting to discuss these problems and others which you may have in mind.

The meeting is called for (TIME AND DATE) at (PLACE OF MEETING). All members are urged to attend. Film strips will show the function and principles of adequate wiring. Other pictures will show good lighting and modern plumbing, suitable for farms and yet moderate in price.

In addition, the REA plan for financing wiring and plumbing will be thoroughly discussed. If you wish to wire your home completely in the beginning and do not have the ready cash on hand at the moment, you will be interested in this plan.

This is your opportunity to solve your problems. The directors, the REA representative, and I will be glad to assist you in any way we can. It is to our interest to make and keep you satisfied with our new electric service.

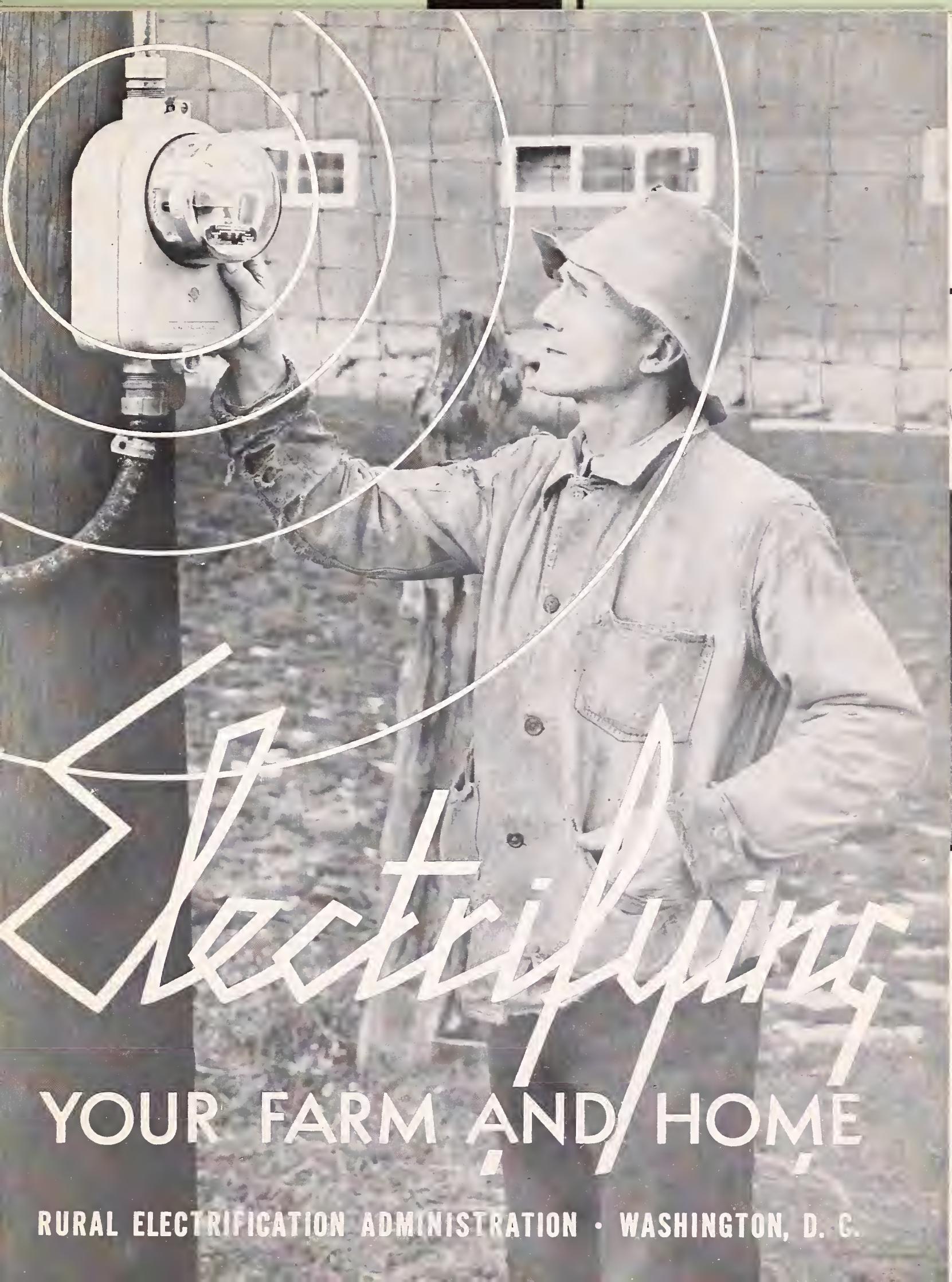
Remember the date (INSERT DATE AGAIN).

Yours very truly,

WHEN CONSTRUCTION BEGINS



STEP
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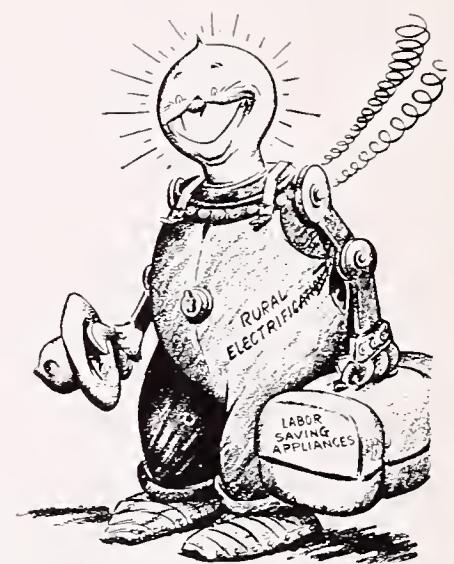
Electrification

YOUR FARM AND HOME

RURAL ELECTRIFICATION ADMINISTRATION • WASHINGTON, D. C.



WHEN CONSTRUCTION BEGINS



HELLO BOSS...

"I AM THE NEW HANDY MAN.

"I am moving out to the country to work. I have never been fired from a job in my life. I have turned motors and I have baked cakes. I have controlled the signal systems for the railroads, and I have run toy trains for children. I am not conceited when I say there is just about nothing I can't do if only I have the proper equipment.

"And, Boss, I am so full of energy that I never sleep. I never take time out to eat. The wages I ask are small. If you let me do enough work, I'll promise to increase your income and save you so much time and strength that you won't even miss what you pay for my services. I'll light your home,

your yard, and barn. I'll pump the water for your family and heat it too. I'll hoist the hay, grind the feed, saw the wood, and irrigate the fields. I'll milk the cows and cool the milk and I know new tricks in looking after poultry that will make them pay you well.

"Your wife will be pleased with my work, too, Boss. I can clean the house, wash the clothes and iron them, sew and cook and relieve her of a dozen duties that use all her time and sap her strength.

"I want this job, Boss. If you give me a chance, I'll make your farm look like a different place. I'll make life for you and the whole family easier and happier. How about it? Do I get the job? Thanks, Boss."

STEP 3

To hire itself out as a "handy man" and tireless servant, electricity asks only this of you: That you outline the chores that you want it to do, and furnish the proper equipment; that you give it adequate "highways" (wires) to travel to the places where it is needed; and that you furnish plenty of "outlets" that it may do its work. Then this handy helper will work the round of the clock for small wages. It will do its work so quickly and efficiently that it will save you money in the long run.

The reason that electricity is so generally used in cities and factories is that it is the cheapest, cleanest, and quickest power known. It has this added and important quality: the more it is used, the cheaper it becomes. Plan now to let electricity make your life easier and your farm more prosperous. The Rural Electrification Administration stands ready to help you with your plans.

PLANNING FOR POWER

THIS booklet is being sent to you as a new rural user of electricity, that you may know what electric power can, and should, do for you.

Probably for a long time you have looked forward to the day when electricity would light your home and farm. That day is here. Soon, at the flip of a switch you will have light. The time you grudgingly gave to filling and cleaning unsafe oil lamps can be used in more pleasant and more profitable ways. But stop to consider that the electricity that flows through the wires to your farm will do a hundred and one other things for you if you will give it a chance.



WHEN CONSTRUCTION BEGINS

ELECTRIFY YOUR HOME

IF your home now—as you read this booklet—is poorly lighted, if hours are spent pumping and carrying water, if kitchen duties are a never-ending drudgery, and washday a nightmare, then you may well ask: Are you working for your home, or is your home working for you?

Electricity, whose magic touch has done so much to transform millions of city houses into real homes, is ready to do the same in many rural areas. Here are some of the benefits and helpful aids it can bring to you.

LIGHTING

Good lighting in the home means comfort, safety, convenience, beauty. It safeguards that priceless asset, your eyesight. Every room naturally presents its own lighting problem. That problem should be met by correctly answering the question, "Where do I want light and how much light do I want?" The selection of lighting fixtures, with the proper size of lamps, must be made first on the basis of their efficiency to do the job and, secondly, on their style and fitness as to decoration.



Electricity has made this farm home a far more comfortable living place for the entire family.

STEP 3

Besides hot and cold running water in the kitchen, electricity makes possible a modern bathroom and an ample, outside water supply for irrigation and livestock.



WATER SYSTEMS

Statistics show that farm women carry an average of 50 tons of water each year. That means, for this one chore alone, a full month of 8-hour days and about 200,000 unnecessary steps in the process.

The same figures also show that the average farmer spends about 1½ months out of every year pumping and carrying water for farm uses.

The benefits of running water in the farm home and on the farm itself are too numerous and obvious to require detailed comment. Running water in any home means health and comfort for everyone who lives in it. In safeguarding the health of children it is important.

The one ever-present danger of fire should alone be sufficient reason for the installation

of an electric water pressure system. For average purposes a water pressure system is recommended which will be able to deliver at least 300 gallons per hour. In addition to fire protection, such a system will provide for kitchen, bathroom, sprinkling, and for the stock.

With running water the problem of satisfactory sewage disposal may be easily solved. A well-designed and built septic tank gives complete protection in the matter of disposing of farm sewage.

Obviously, the cost of operating such a system will vary greatly according to the amount of use required. However, it is possible to estimate an average monthly power consumption of from 20 to 30 kilowatt-hours.¹

¹ A kilowatt-hour (kw.-hr.) is the unit of measurement of the amount of electricity consumed.



WHEN CONSTRUCTION BEGINS

ELECTRIC REFRIGERATOR



THE electric refrigerator is a leader among the time, labor, and money saving appliances in the farm home. With it your ice problem vanishes for good. Your food is perfectly preserved in spacious, clean, and dry compartments. You have ice cubes whenever you want them. The electric refrigerator works automatically and is plugged into a regular convenience outlet. Various types and sizes are available. Average monthly consumption is about 50 kilowatt-hours.

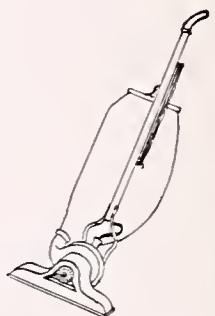
ELECTRIC RANGE



ONE of the greatest time savers, the electric range, solves the cooking and fuel problem in the farm home. It makes for coolness. It is clean, fast, and eliminates

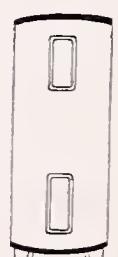
the work of carrying fuel and ashes. An average size is the four-burner electric range with oven, but there are several other sizes available. Average power use is 150 kilowatt-hours per month or 30 kilowatt-hours per person per month.

VACUUM CLEANER



AN ELECTRIC cleaner gets rid of dust and backaches. It solves your cleaning problem and banishes drudgery. Standard attachments are provided for special cleaning jobs, such as removing dust from curtains, upholstered chairs and sofas, cushions, etc. Average monthly consumption is about 4 kilowatt-hours.

AUTOMATIC WATER HEATER

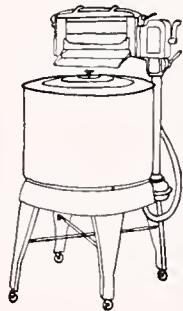


IT IS scarcely necessary to add that, having obtained an electric pressure system supplying your home and farm with

STEP 3

water, you may want an automatic water heater installed in your kitchen. You will find your automatic electric water heater a great source of comfort in many ways. Average monthly consumption is about 275 kilowatt-hours.

ELECTRIC WASHER



AN ELECTRIC washer makes your washday welcome. Your washing is done magically, a great saving in your time, health, and comfort and the clothes last longer. Plugs into any convenient outlet (wall or base plug), and works automatically. Average monthly consumption is about 3 kilowatt-hours.

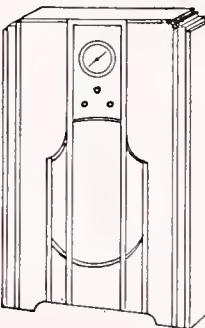
ELECTRIC IRON



DO YOU dislike hot stoves and hot kitchens? Certainly you do. And with an electric iron you avoid discomfort and save time. It's very inexpensive to operate, too. The value of the electric iron is proven conclusively by the fact that it is used in nearly 98 percent of America's wired homes.

Average monthly consumption is about 6 kilowatt-hours.

RADIO



THE MODERN farmer knows very well the benefits and pleasures to be obtained from radio. The electric radio receiving set is connected to the convenience outlet, insuring constant service and eliminating the periodic expense and inconvenience of dry cells and storage batteries. With an electric radio you are always sure of service and, of equal importance, uniformly good service. Average monthly consumption is about 10 kilowatt-hours.

OTHER APPLIANCES

OTHER APPLIANCES which serve in the completely electrified farm home are the ironing machine (uses about 1.4 kilowatt-hours per hour) and oil-burner equipment (electrically operated for furnace). The following handy electrical devices for use in the home consume very little electricity each month. They are the toaster, griddle, fan, curling iron, churn, ventilating fan, waffle iron, heating pad, grill, hot plate, percolator, casserole, cooker, and vibrator.

WHEN CONSTRUCTION BEGINS



Outlets on farm buildings and 40 feet of cable permit use of this 5-horsepower portable motor for dozens of heavy tasks.

WIRED HELP FOR THE FARM

EVERY farm, large or small, is a business and demands good business methods.

Electricity on the farm means the most efficient and most economical operation. It saves time and increases production.

Electricity can grind feed, elevate grain, milk cows, cool milk, run clipping and shearing machines, shell corn, saw wood, light yards and barns, and do many other chores at little cost. The more power you use, the cheaper it gets.

With electricity available to pump water in time of need, crops, otherwise lost, can be saved. Fire in the rural home or barn frequently means a total loss. Records show

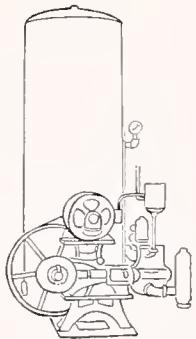
that the annual fire loss in rural areas averages about \$250,000,000. With water under pressure, this danger to life and property can be minimized. Finally, electrically pumped water for the livestock saves much hard work, and insures an adequate supply so essential to good health and maximum production.

Most of these jobs are done with an electric motor. A 1-horsepower motor can do the work of 10 men.

Rural electrification can make farming an easier and more prosperous business. It is time to plan for the things electricity will do on your farm.

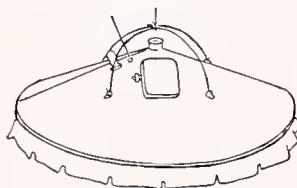
STEP 3

WATER SYSTEMS



AN ELECTRIC motor will bring you water for irrigation and for your live-stock. You do not need to be told what an adequate supply of water means. You know. The electric motor is the instrument that provides you with the water you need under sufficient pressure to meet your every purpose. Naturally, the size of the motor employed will be determined by the size of the job to be done. From the standpoint of fire protection alone the obtaining of an adequate pressure system is more than justified.

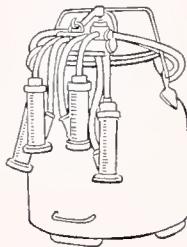
ELECTRIC BROODING



THE ELECTRIC brooder insures a constant supply of clean, warm air, providing adequate circulation without drafts. The electric brooder places all the heat where it is needed—into the hover—and maintains the scientifically correct temperature. It produces faster and more vigorous

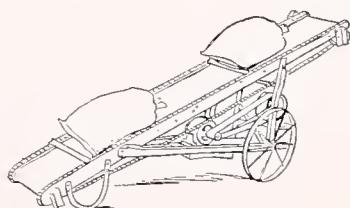
growth of well-feathered chicks, with a tremendous reduction in labor, and eliminates fire hazard. The brooder comes in various sizes; be sure that the one you get is large enough. Average power consumption is one-half kilowatt-hour per chick (6 weeks).

MILKING



IN ADDITION to the obvious elimination of tiresome physical work, an electric milking machine cuts the milking time in half. In many cases the use of an electric milking machine has been found to increase the total milk production. Average monthly consumption to milk 10 cows is about 20 kilowatt-hours.

GRAIN ELEVATING

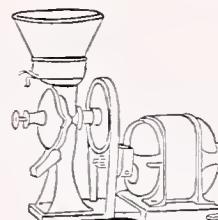


AT THE grain elevator the portable electric motor is suggested for elevating shelled and corn grain. The conveyor, of course, to be run at the desired speed, taking from $1\frac{1}{2}$ to 5 kilowatt-hours per each 1,000 bushels elevated.



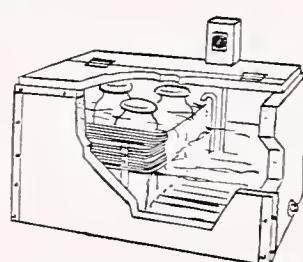
WHEN CONSTRUCTION BEGINS

FEED GRINDING



THE TIME and labor-saving benefits of electrical feed grinding, besides the profit from having freshly ground feed available, are obvious. Feed grinders from one-half horsepower size and up are available. They save those costly trips to town and grind feed very inexpensively and with little attention. Power consumption is from one-third to 3 kilowatt-hours per 100 pounds of feed, depending on fineness of grinding.

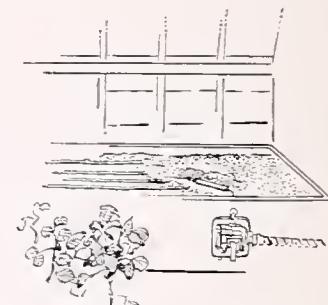
MILK COOLING



THE ELECTRIC milk cooler eliminates your losses from spoiled or rejected milk and increases your profits by enabling you to deliver the highest quality milk in summer or winter. The investment in an electric milk cooler is about the same as the cost of an equipped ice house and the cost of electricity to operate the cooler is about one-half the cost of purchased ice. The cooler reduces the milk temperature to the safe zone quickly and automatically keeps the milk cool. It eliminates those regular trips to the

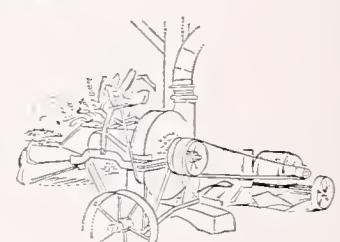
ice house or to town for ice. Average power consumption is 30 kilowatt-hours per month per 10 gallons cooled each day.

SOIL HEATING



ELECTRIC soil heating in hotbeds and propagating benches maintains that uniform ideal growing temperature to produce a more vigorous, uniform growth of young plants in a much shorter time. Electric beds are cleaner, need not be rebuilt each season, and cost very little to operate. Power consumption is 1 to 3 kilowatt-hours per sash (3 by 6 feet) per day.

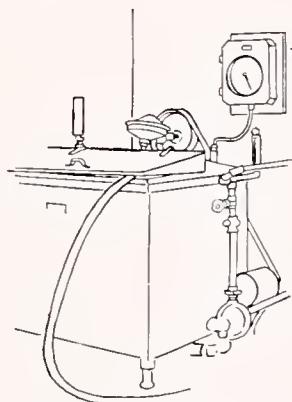
SILO FILLING



THERE ARE many uses to which electric motors can be put on the modern farm to facilitate various kinds of grinding and elevating work. For example, a 5 hp. utility motor can be employed at the silo to operate the silo filler. This method requires fewer men and less hurrying, and takes but 1 to $1\frac{1}{2}$ kilowatt-hours per ton.

STEP 3

DAIRY STERILIZERS AND WATER HEATER



TO PRODUCE high quality milk profitably it is necessary to keep bacteria from getting into the milk from utensils. Electric dairy sterilizers, available in several sizes and types, solve this problem very nicely, or a dairy water heater will help you fight the bacteria-count battle. For dairy utensil sterilizing for 10 to 40 cows, the power consumption is $3\frac{1}{2}$ to $7\frac{1}{2}$ kilowatt-hours per day.

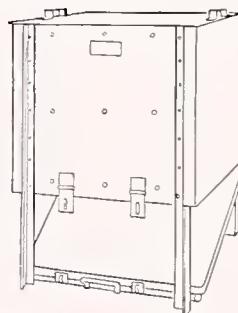
LIGHT AND PLANT GROWTH



FLORISTS AND market gardeners find the use of the same type electric lamps used in your home or barns very profitable for bringing flowers into bloom

and controlling plant development to be ready for market at the time they will command the highest price. Lamps in greenhouses or hotbeds can be turned on evenings or mornings to supplement normal daylight with low intensity artificial light to either stimulate or retard blooming of flowers and stimulate plant growth. Thus light and soil heating make it practically possible to predict the day your crops will be ready for market.

SOIL STERILIZING



NURSERYMEN find it highly desirable and profitable to raise young crops in beds free from plant enemies such as diseases, insects, and weeds. The electric sterilizer places this directly under the operator's control and in a convenient and agreeable form. Power consumption is from 1 to $1\frac{1}{2}$ kilowatt-hours per cubic foot of soil.

ELECTRICITY ON THE POULTRY FARM

IT IS WELL known that electric light in the poultry house during the fall and winter months produces real profits from greater production when prices are highest. The cost is very little. Another factor which

WHEN CONSTRUCTION BEGINS

increases egg production during the winter is warmed drinking water. If the water is warmed hens drink on the average of 25 percent more water during the cold weather. There are several types of electric heaters available for warming drinking water for poultry. The cost for current used is negligible since ordinary 25- to 75-watt heaters are used. The electric incubator is so far superior to any other type that very few incubators now available are other than electric. Power consumption is from 150 to 300 kilowatt-hours for 1,000 eggs incubated.

OTHER USES

ELECTRICITY has many other applications. For example, it is of great value in the workshop where some of the time and money-saving devices are the electric drill, electric soldering iron and electrically operated drill press, grindstone and emery wheel. Some other valuable uses for electricity include hay hoisting and wood-sawing. Egg candling, feed mixing, the operation of a clipper or shearer, and various heating and lighting jobs may also be mentioned.

YARD AND BARN OUTLETS

WHEN WIRING your place, make it easy for electricity to work for you. Look ahead to the new electrical equipment you will buy each year. See that you have enough outlets on and in all farm buildings for the many services of a portable motor. Provide today for tomorrow's needs.

YARD AND BARN LIGHTING

A CENTRALLY located floodlight in the farmyard is both a convenience and a protection. The amount of light for various farm buildings depends on the visual demands of the work to be performed. In farm buildings, as well as in the farmhouse, avoid working in your own shadow. Make sure enough light is provided for the speedy performance of all farm tasks.

WIRING INSPECTION

YOU WILL save both money and trouble if your wiring is installed by a contractor thoroughly experienced in farm wiring. When the job is finished it should be checked by an electrical inspector. Make sure your wiring installation is safe and adequate for all your needs.



STEP 3



A three-wire system means that this farm home will need no rewiring when a range or large motor is added to equipment.

MAKE YOUR WIRING ADEQUATE

ELECTRICITY cannot do good work for you unless you give it the right tools to work with—and enough of them! In other words, it cannot work well if the working conditions are not right.

All electricity needs in the way of working tools is good electrical wiring and plenty of convenience outlets (wall or base plugs) and switches. In plain words, there must be **adequate wiring**, installed to fit the job you want done.

When you have decided what chores you want done around the house and on the farm and in the farm buildings, you can then tell the contractor who will do your wiring just

what you require—in detail. Be sure you get a competent man. Then be sure you tell him exactly what you want in the way of electrical service. What is equally important, be certain to make some estimate of your future needs. If, later on, you are going to increase the use you make of electricity, you must tell him now so that he will wire your farm and buildings **adequately—for your future as well as your present needs.**

In closing, here are just a few important things to remember:

1. Have enough convenience outlets and switches, properly placed, in every room and building.



WHEN CONSTRUCTION BEGINS

2. Avoid having lengths of electrical cord on the floor, under the carpet or across doorsills.
3. Arrange the placing of convenience outlets so that you can do your work conveniently. Among other things that means you will not work with a shadow across the place you are working.
4. Remember that for the heavier duty appliances, such as the electric range and water heater, heavier duty wires are

needed. This requires a special type of installation. Therefore, you must be sure to tell the man who is to do your wiring exactly what appliances you are going to operate now and later and where you want them placed.

5. Have enough lighting switches installed at the proper points so that you can light your way ahead, particularly a stairway, hall, basement, attic, hay mow, or back-porch steps.



THE PURPOSE OF THIS BOOKLET

REA has prepared this booklet in the hope that it will bring you the message of what complete electrical service will mean to you and every member of your family both in your home and on the farm itself.

Electricity holds tremendous promise for the farms of the United States. REA is trying to change what is today a great hope into an equally great actuality.

REA is organized to assist the farmer, through loans, to obtain electric service. In doing so, REA will deal with local organizations—local cooperatives, incorporated electrical contractors, private utilities with rural service lines, and State, district, or municipal electric systems operating rural lines. REA will not lend funds to individual farmers directly, nor can it finance wiring on just a few farms. The loans must be used to wire a fairly large group of farms, so that economies of mass construction can be realized.

These loans are to be used for installing all the wiring necessary to prepare the farm for the installation of household fixtures and appliances, as well as electrical farm equipment. The loans do not cover the fixtures themselves.

Your local contractor is prepared to help you with your wiring problem. However, if you have further questions which he is

unable to answer, the Rural Electrification Administration at Washington, D. C., will help you.

It cannot be emphasized too strongly that the more extensive use the farmer makes of his electrical service to operate farm machinery and household appliances, the greater assurance he will have that his electrical system will be successful and economical in the long run.

This means:

- First—An adequate wiring installation.
- Second—Purchase of quality appliances and equipment and enough of them.
- Third—Making the greatest possible use of your electrical service.



WHEN CONSTRUCTION BEGINS

THE REA ELECTRIFIED FARM, HERNDON, VA.

THE REA Electrified Farm near Herndon, Va., is a project sponsored by the Exhibits Committee of the World Power Conference, the National Electrical Manufacturers Association, the Plumbing Industry, Manufacturers of Farm Equipment, and the Rural Electrification Administration. It is open to the public, so that visitors to Washington may have an opportunity to see some of the uses of electricity on the farm and in the farm home.

Here electricity has blended modernized farming with the charm of a historic background. It increases efficiency and the farm output, and has reduced drudgery. It adds to the comfort and pleasure of the family. Electric power pumps water for the house, the barns, and for irrigation. It hoists hay, grinds feed, milks the cows, cools the milk, operates farm tools and machinery. It provides light, preserves and cooks the food, and

performs many other tasks. It has increased the value of the property and has reduced fire hazards to a minimum.

Visitors are received on weekdays from 10 a. m. until 12 noon, and from 2 to 5 p. m., and on Sundays between 2 and 5 p. m.

The farmhouse, owned by Mr. and Mrs. J. M. Hughes, is nearly 200 years old. Built first of logs, it has been modernized by gradual stages, keeping the original structure. White frame covers the rough logs. The roof is of green composition and the six-room house has been enlarged by two downstairs room extensions.

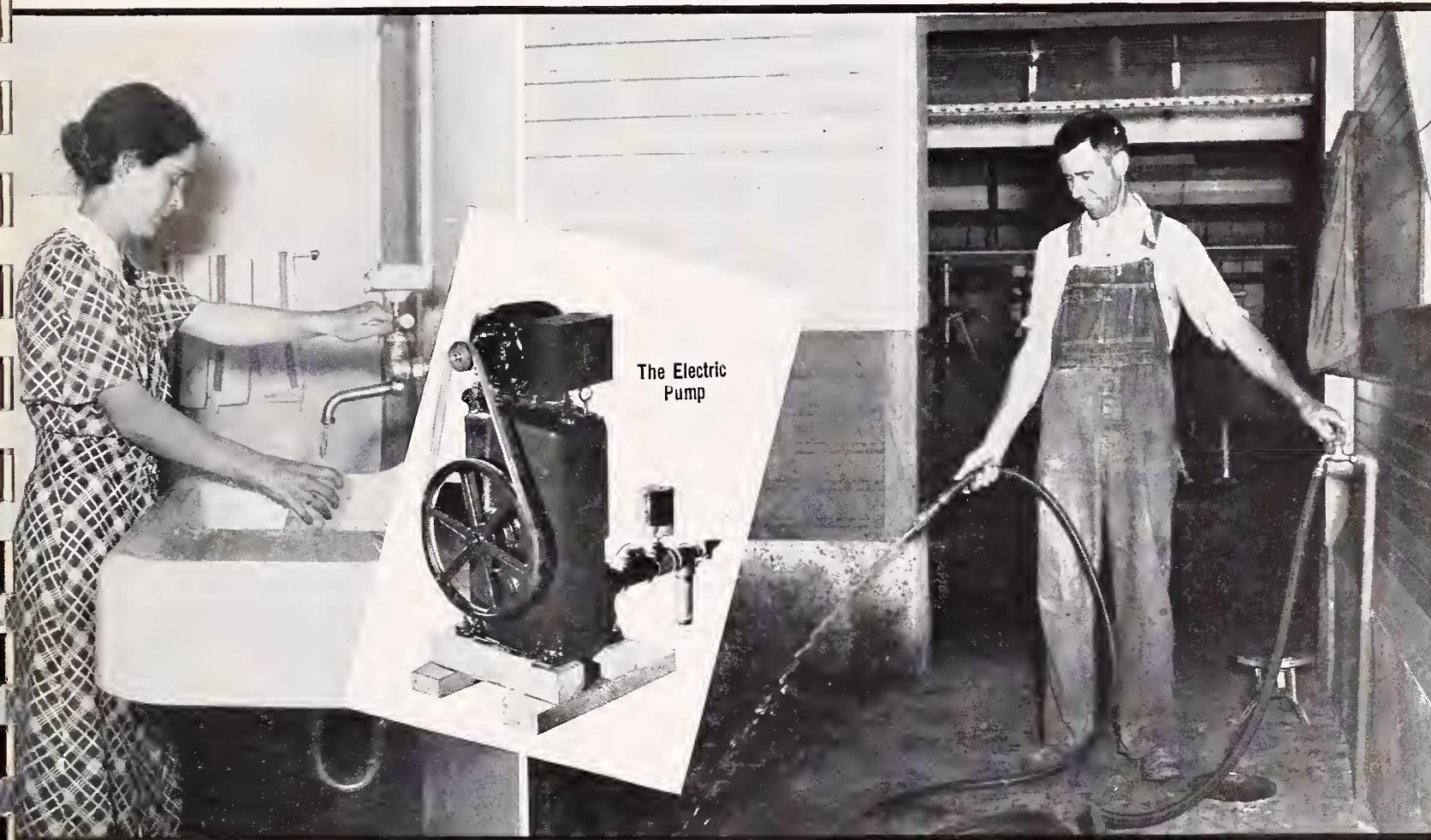
During the Civil War, Gen. Robert E. Lee made the farmhouse his headquarters for a short time. Gen. "Stonewall" Jackson conferred and dined with him there. "Fighting Joe" Hooker also visited the farm during that period. Even now the plow occasionally uncovers a rusted cannonball.

The 312 farm acres have been conserved by rotation of crops and careful farming. At present about 70 acres are devoted to pasture for the dairy herd. The crops include corn, wheat, hay, and barley. Hogs, poultry, and eggs add to the farm income.

STEP
3



GOOD PLUMBING MORE THAN PAYS FOR ITSELF

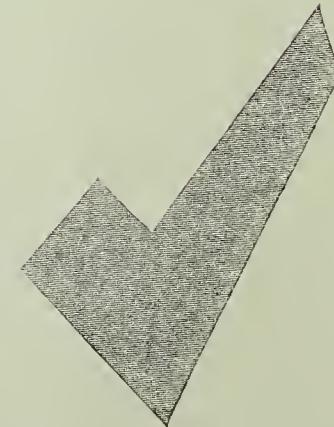


Running water on the farm pays its way in time saved, increased yields, fire protection, and better health for your family and livestock. Nearly every farm activity is done better, quicker, and more economically with an abundance of good water to help. New savings and profits often will offset the initial cost of an electric, pressure water system.

As a bonus you will get new comfort. You will have running water in the kitchen and an inside bathroom with modern sanitary fixtures. You will have plenty of water, both hot and cold, for laundry work and scrubbing. Out-

side, no more "toting" water for stock! When you mix mash for the hogs, or water the horses, a turn of the faucet does the work. In the dairy and poultry house, as all feeders know, more water means more milk and eggs, more profits.

Today no farmer should be without running water. REA helps you to plan a modern plumbing installation. A few pointers are carried on the inside pages. See your project officials for detailed information on pumps, fixtures, and sanitary sewage-disposal systems for the farm and farm home.



WHEN CONSTRUCTION BEGINS



THE ELECTRIC PUMP AND PRESSURE TANK

In most cases, your present well is suited to an electric water system. If the water level is not lower than 22 feet, it is more economical to use a Shallow-Well Pump. A Deep-Well Pump must be used if water level is below 22 feet.

- Have the Pressure Tank as near the pump as possible for lowest operating cost. The electric pump permits the use of a pressure switch which automatically starts and stops the pump as the tank pressure requires. This attachment will permit use of a small-size tank. For ordinary conditions, a 42-gallon tank is entirely satisfactory.
- A control to regulate the air in the tank will prevent it from getting water-logged and save expense and trouble.

CONSULT THIS TABLE FOR PUMP SIZES

Minimum domestic use... 200 gallons per hour.

Average domestic use... 275 gallons per hour.

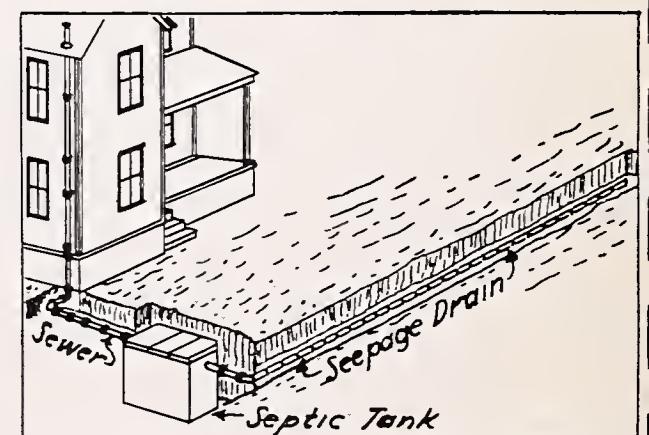
Average domestic use

and stock watering... 400 gallons per hour.

NEW HEALTH AND

COMMON-SENSE FIXTURES

Modern plumbing fixtures are low in cost, and no single improvement contributes so much to individual comfort and health as bathroom and kitchen fixtures.



STEP 3

COMFORT ON THE FARM

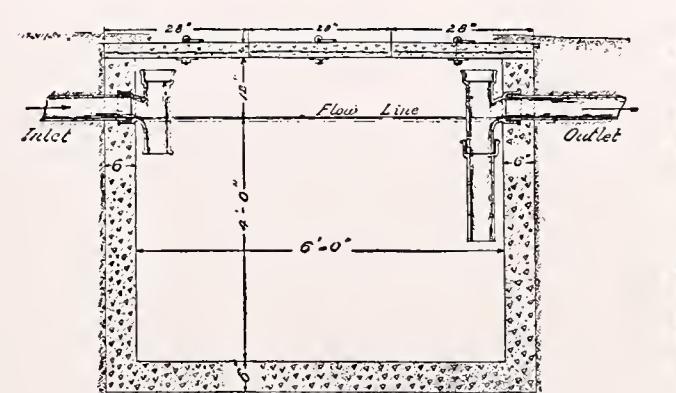
The Kitchen Sink is the center of the kitchen work. By carefully selecting and locating it the housewife will lighten her work and save many steps. The Bathroom protects the health of the entire family. A Bathtub or Shower makes

bathing easy, pleasant, and refreshing after a day's work in the fields or barn. • Outside Hydrant Faucets give fire protection and provide water for the kitchen, vegetable garden, and lawn.



THE SEWAGE-DISPOSAL SYSTEM

An effective sewage-disposal system consists of drains for receiving the waste from the house, a septic tank, and a seepage drain. The Septic Tank is merely a place where most of the sewage and solid waste materials are decomposed into liquids and gases. It is easily installed by ordinary labor. • The U. S. Public Health Service recommends a septic tank of not less than 500-gallon capacity. The tank should be located at least 5 feet from the house and at least 100 feet from any source of drinking water.



WHEN CONSTRUCTION BEGINS



PLUMBING PROFITS FOR THE FARMER

1. FOR THE GENERAL FARM.—An outside faucet at each watering trough easily provides water for livestock in the pasture or barnyard. Water from ordinary outside hydrants will often be sufficient to carry the kitchen garden or small truck patch through a mild dry spell. Larger truck gardens require more elaborate irrigation methods. These can be included in the regular water system, but the additional demand may require larger pump and tank capacity.

2. FOR THE DAIRY FARM.—Water is needed also for cooling and sterilizing equipment in the dairy house. An abundance of fresh water in the dairy barn increases milk production and helps in keeping milk clean. Cows produce much more milk with drinking cups at the stanchion. With a hose faucet and several lengths of hose, the dairy barn can be easily and frequently cleaned.

3. FOR THE POULTRY FARM.—Egg production is proportional to the amount of water consumed by the hens. A pipe line to the hen house, with drinking fountains for the hens, makes it easy for you to give them the necessary water. An abundance of water is needed also for preparing and packing broilers for market.

When planning your electric water system, be sure to ask your REA project officials for specific information. See them for complete lists of equipment and prices. They will be glad to provide valuable working directions.



STEP 3

A

NEWS STATEMENT 4

STEP 3

(Note.—Issue Statement No. 4 or call Editor at time Letter No. 4 is mailed.)

A meeting of all members and prospective customers of (GIVE NAME OF COOPERATIVE), to be held on (TIME AND DATE), at (PLACE OF MEETING), for the purpose of discussing electric wiring, lighting, and plumbing was announced by (NAME OF SUPERINTENDENT), superintendent, in a letter to the cooperative members.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

Construction of our new rural electric lines began this morning when the (NAME OF CONSTRUCTION FIRM) moved its crews and machines to this part of the country and began work. Much of the material has already arrived, and poles, wire, transformers, and other equipment are on the way from many parts of the country.

Many questions have come up concerning wiring, lighting, and the other problems that you are facing in getting ready for power. The cooperative directors have scheduled a meeting to

discuss these problems and others which you may have in mind.

The meeting is called for (TIME AND DATE), at (PLACE OF MEETING). All members are urged to attend. Film strips will show the function and principles of adequate wiring. Other pictures will show good lighting and modern plumbing, suitable for farms and yet moderate in price.

In addition, the REA plan for financing wiring and plumbing will be thoroughly discussed. If you wish to wire your home completely in the beginning and do not have the ready cash on hand at the moment, you will be interested in this plan.

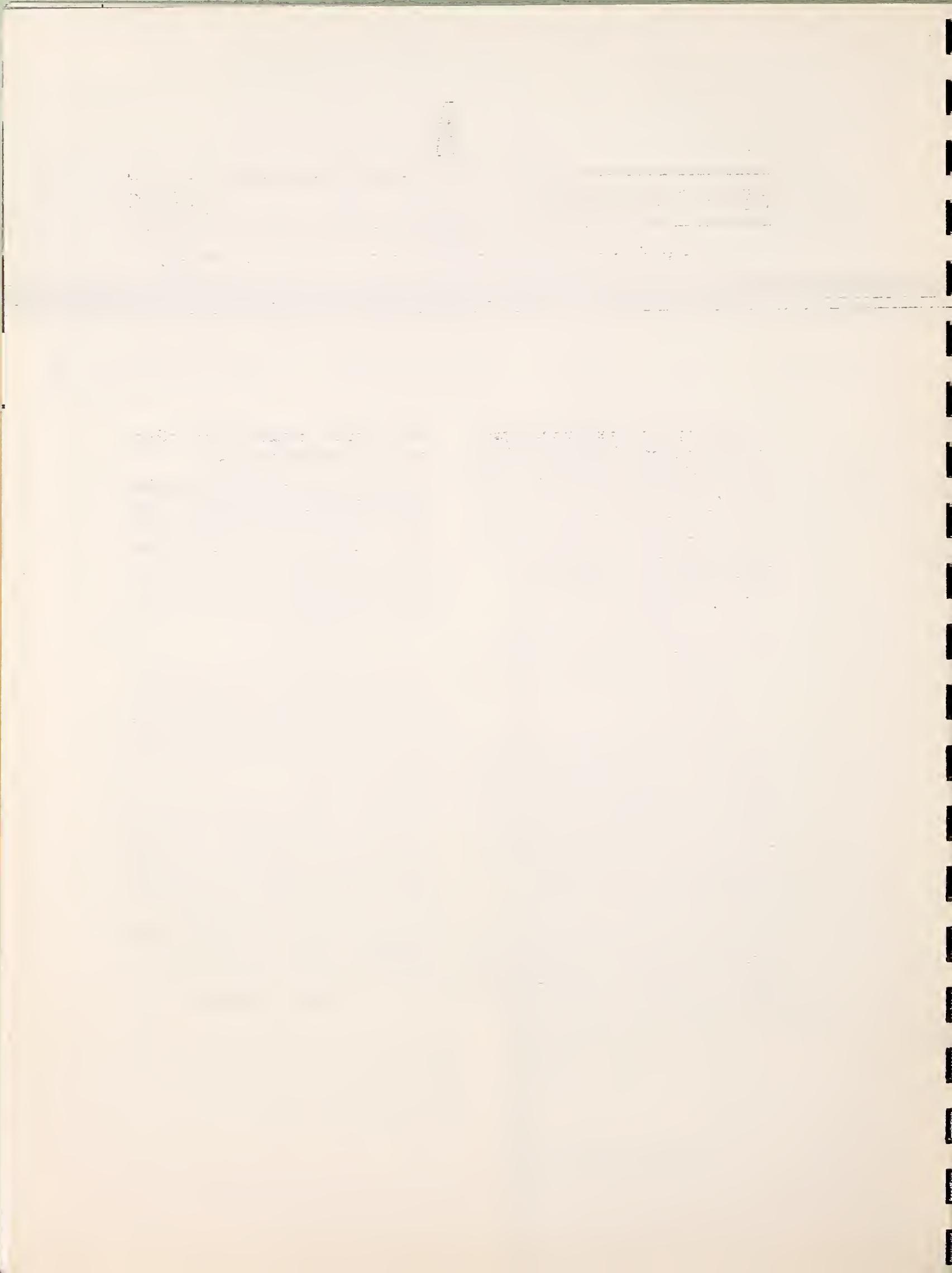
This is your opportunity to solve your problems. The directors, the REA representative, and I will be glad to assist you in any way we can. It is to our interest to make and keep you satisfied with our new electric service.

Remember the date, (INSERT DATE AGAIN).

Yours very truly,



WHEN CONSTRUCTION BEGINS



STEP 3

B

DEALER MEETING

STEP 3

PLAN FOR DEALER MEETING

When construction begins, arrange for all dealers in home appliances and agricultural equipment to meet with the Board of Directors.

Suggested order of business for meeting

1. Obtain names of persons and firms present.
2. Explain utilization program outlined in this portfolio.
3. Read E. H. F. A. statement on appliance finance plan.
4. Discuss coordination of sales efforts of all dealers and adoption of E. H. F. A. plan.
5. Arrange dates, places, and leaders for group meetings to give the members in all sections of the project the story of how electricity can be used in the home and on the farm. Whenever possible, secure the assistance of the Agricultural Extension Service and REA Utilization Division field representatives.
6. Distribute membership lists.
7. Encourage dealers to arrange newspaper advertisements and publicity.



WHEN CONSTRUCTION BEGINS

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CIRCULAR No. 1

ELECTRIC HOME AND
FARM AUTHORITY

ITS PLAN FOR FINANCING
THE RETAIL PURCHASE OF
ELECTRICAL APPLIANCES



WHEN CONSTRUCTION BEGINS

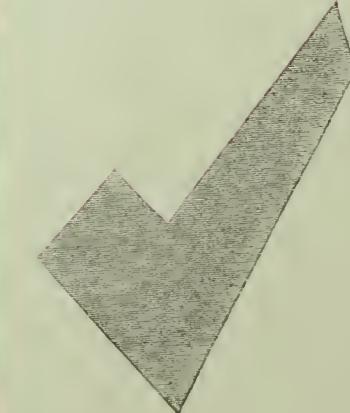
STEP 3

ELECTRIC HOME AND FARM AUTHORITY

This circular describes the time payment plan of Electric Home and Farm Authority for financing the retail purchase of electrical appliances.

Among the principal objectives of this program, in addition to offering a beneficial and necessary service to the users of electricity, is to lessen the burdens in the home and to increase efficiency on the farm, through the greater use of electricity. The beneficial effects of this program are felt not only by the actual consumers of electricity but also by the producers and distributors of electric power as well as manufacturers of and dealers in electrical appliances.

Electric utilities and appliance manufacturers participating in this plan realize that the way to increase appliance sales and the use of electricity is to provide a plan which makes their use feasible and economical. The utilities cooperating with Electric Home and Farm Authority are selling electricity at rates which make the use of appliances economical.



WHEN CONSTRUCTION BEGINS

Electric Home and Farm Authority is not a manufacturing or a merchandising organization. It is interested in making the benefits of electricity more generally available through the greater use of electricity consuming appliances. It seeks to bring about cooperation among the electrical utilities and electric appliance manufacturers and the dealers with the view of accomplishing the widespread purchase and use of electricity and electric appliances.

HOW THE PLAN OPERATES

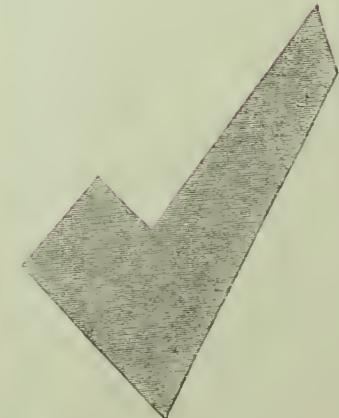
UTILITIES.—The program may be extended only to those areas where the rates for electricity are such as to make feasible the purchase and use of electrical appliances by families of average income. The plan is available to the customers of those publicly owned and privately owned electric utilities who enter into an agreement with Electric Home and Farm Authority. This agreement provides that the utility, as agent for the Authority, shall collect monthly installments on appliances financed through Electric Home and Farm Authority. The utility is reimbursed for this service. In addition, the agreement may provide for the utility to purchase for Electric Home and Farm Authority, customer contracts that are presented to it by

STEP 3

authorized dealers; that is, dealers may present their retail customer sales contracts to the utility and receive cash immediately for the unpaid balance of the contracts. The funds so advanced to dealers are repaid to the utility by Electric Home and Farm Authority.

If, for any reason, arrangements cannot be made for the utility to advance funds to the dealer, an agreement may be made whereby the customer contracts will be forwarded directly to Electric Home and Farm Authority. In these cases Electric Home and Farm Authority pays directly to the dealer the cash selling price of the appliance, minus the down payment and the utility collects the installments due.

MANUFACTURERS.—All electrical appliances eligible for financing under this plan must be first approved by Electric Home and Farm Authority. A large number of manufacturers have received Electric Home and Farm Authority approvals on their products. Other manufacturers whose products have not been approved for financing, but who desire to participate in the plan, are invited to communicate with Electric Home and Farm Authority, Washington, D. C., and submit their products for consideration.



WHEN CONSTRUCTION BEGINS

The appliances eligible for financing are as follows:

Refrigerators	Domestic clothes	Cream separators
Ranges	washers	Farm motors
Water heaters	Domestic clothes	Dishwashers
Water pumps	ironers	Milking machines
Waste disposal units	Vacuum cleaners	Attic ventilating fans
Radios	Beverage coolers	
	Milk coolers	Feed grinders

DEALERS.—Dealers wishing to obtain approval under the plan will submit an application in triplicate directly to Electric Home and Farm Authority, Washington, D. C. Application forms for this purpose may be secured from the Electric Home and Farm Authority offices or from the nearest cooperating utility. The dealer will be informed of the action on his application as a retailer under the plan at the earliest possible date. With their application retailers will sign the standard form of Electric Home and Farm Authority contract by which the retailer agrees to buy back, upon default, purchaser contracts sold by him to the Authority for a price equal to the unpaid balance less unearned discount on each contract repurchased.

Approved dealers may obtain without charge purchaser contract forms and time payment charts by application to Electric Home and Farm Authority. These forms and charts may be obtained also from the nearest cooperating utility.

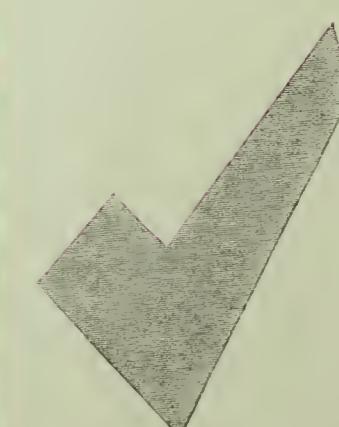
Electric Home and Farm Authority will not buy any purchaser's contract unless it is on the Authority's forms and unless the contracts comply with the latest Electric Home and Farm Authority chart of time payments.

STEP 3

The maximum contract periods applicable to the appliances listed heretofore are as follows:

1. Refrigerator, range, water heater, water pump, milk cooler, cream separator, farm motor, clothes ironer, purchased individually... 36 months
2. Any combination of appliances listed in No. 1..... 48 months
3. Washing machine or vacuum cleaner, purchased individually or in combination..... 24 months
4. Washing machine or vacuum cleaner, purchased in combination with any one appliance listed in No. 1..... 36 months
5. Washing machine or vacuum cleaner, purchased in combination with any two appliances listed in No. 1. 48 months
6. Dishwasher..... 18 months
7. Waste disposal unit..... 12 months
8. Beverage cooler (minimum down payment 10%). 24 months
9. Milking machine (minimum down payment 10%). 30 months
10. Attic ventilating fan (minimum down payment 10%). 18 months
11. Feed grinder (minimum down payment 10%). 24 months
12. Radio (priced at \$100 or less). 12 months
Radio (priced over \$100). 18 months
(Minimum down payment on radios 10%).
Radios may be financed in combination with any of the other appliances listed above. The maximum maturity of a combination sale including a radio will be determined by the maximum maturity of the other appliance or combination of appliances in the sale.

The minimum unpaid balance (retail price less down payment) of any contract financed through Electric Home and Farm Authority is \$40. The down payment on any contract must be at least 5 percent, except the down payment on attic ventilating fans, beverage coolers, milking machines, feed grinders, and radios, on which it shall be at least 10 percent.



WHEN CONSTRUCTION BEGINS

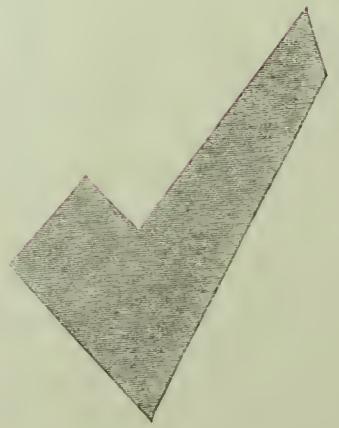
CONSUMERS.—The routine of purchasing an approved electrical appliance and financing it under the Electric Home and Farm Authority plan is not unlike purchasing many other commodities on a plan of deferred payments. The customer, after selecting the approved appliances desired from a dealer participating in the program, merely makes an initial payment of 5 percent or more of the cash retail price and executes an Electric Home and Farm Authority conditional sale contract. Monthly installments are payable to the utility at the same time the electric service bills are due. These payments are credited to the customer's account and forwarded to Electric Home and Farm Authority.

Utility companies, department stores, electrical equipment shops, dealers, and others who are in the business of retailing electrical appliances and serving the customers of a co-operating utility, may apply for an authorization to participate in this program.

Any additional information that may be required can be secured from

ELECTRIC HOME AND FARM AUTHORITY
WASHINGTON, D. C.

STEP
3



WHEN CONSTRUCTION BEGINS

STEP 3

C

WIRING ADDRESS

STEP 3

SUGGESTED ADDRESS ON WIRING, LIGHTING, AND PLUMBING AND THE REA FINANCING PROGRAM

YOU HAVE high hopes for electricity. That is shown by the enthusiasm and effort you have taken to make this project a success. And I believe that electricity will live up to the hopes you have.

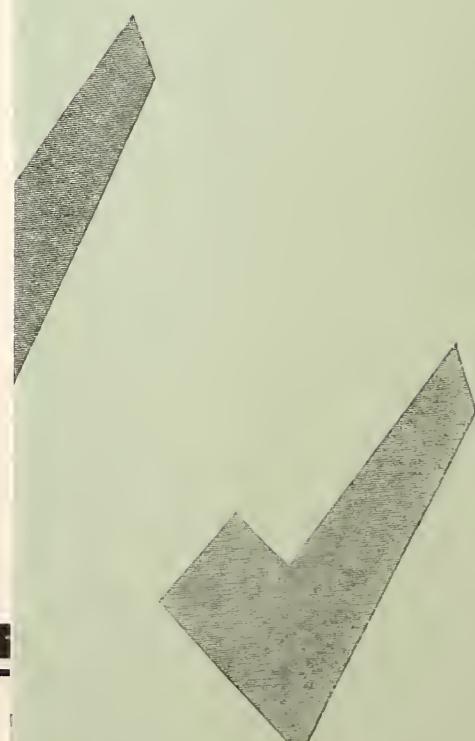
It will increase your income, it will raise the standard of living as no other thing can do, and it will bring more comfort, convenience, and real satisfaction to your homes and families.

However, to bring this about, it is necessary for us to be very practical in our thinking and planning. That is why I am here tonight, to talk over a few practical points in regard to wiring, lighting, and plumbing.

You have heard a great deal about the necessity of safe and adequate wiring. So I will only briefly touch upon that. It is not too farfetched to think of your wiring as a highway. A highway over which electricity will travel to where you need it and can use it. It is easy to see that the kind of highway you build will determine to a large degree just how much electricity will be able to help you. And it is only common sense to put in safe and adequate wiring.

The first point in getting adequate wiring is the planning. Most of you, I imagine, are used to planning. A good farmer has to. For example, you look over the probable prices of hogs and corn and then you plan what to do with your corn. If hogs are selling at a good price you can do better by feeding your corn to the hogs. In some years, however, it is better for you to sell the corn itself on the market. That is planning.

Before wiring your farm, you will have to decide how you intend to use electricity. Naturally, the first thing you will think of is electric lights. I recently heard of one farm family, I believe they lived in Tennessee, who were receiving electricity for the first time. They had an electric range, refrigerator, and washing machine. They installed a good pump and a running-water system. They even had electric outlets in the barns and workshop. It was a truly electrified farm, except they didn't install any electric lights. They still used oil lamps. That is unusual to say the very least, and I can't for the life of me figure out why they didn't install good lights when they had the opportunity.



WHEN CONSTRUCTION BEGINS

But you will not want to stop with electric lights alone. First of all, the project will not sell enough electricity to make it self-liquidating and financially sound if all the members just used electricity for lighting. Secondly, there are many more uses of power that will mean increased income for you. Most of you cannot afford to pass them by.

When planning your wiring then, make provision for all of the uses you expect to make of electricity. The REA wiring check-list which has been sent you, will help in planning. It lists the minimum wiring requirements for each room. With it you can quickly and accurately get a picture of your entire wiring needs.

Keep in mind also that electricity is a growing habit. As you use it more and more you will constantly find new ways in which it will serve you profitably. The sensible thing to do is to wire adequately in the beginning. Then you can expand your use of electricity, without replacing the wiring every time you connect a new appliance. To rewire is an expensive business. It is much cheaper to have your wiring right from the first.

There is another point on wiring that I would like to mention. Some of you may feel that you do not have enough cash to install complete wiring right away. It is a pretty common complaint, and much of it is due to the type of business. A farmer doesn't draw a weekly or monthly pay check like the salaried man in the city. He gets his income once or twice a year when he sells his big cash crop.

REA realizes this fact and it has made it possible for the project members to finance their wiring installations over a period of time. We have made arrangements with REA for a loan to take care of wiring and plumbing installations. Right now we are trying to find out just how much money we will need. Within the next week or two a representative will be around to see you about it. He will also be able to help you in planning your wiring and he will fill out a form showing just how much wiring you plan to install.

There is one other point on wiring. We have decided to follow the group-bidding plan for wiring installations. Under this plan you are assured of a wiring job that will meet all requirements of the State and national wiring codes and that will be done under REA's stringent specifications. Furthermore, your wiring contractor will have many other houses in the same section to wire. This means that he can go right from one job to the other without wasting time. He knows in advance how much material he will need for all the houses in the group, so that he will be able to purchase large quantities of material at a time. Both points will cut his operating costs and hence the price will be considerably cheaper to you than it would otherwise be.

STEP 3

When the survey representative calls he will be able to tell you more about the plan. The survey sheet itself will outline your wiring needs and the contractor, selected through competitive bidding, will be able to use it when he purchases materials.

For many years engineers and scientists have been working on the best design for lighting fixtures, and they have hit upon several outstanding designs that give good light without glare. Modern fixtures are not especially elaborate. They aren't full of brass curlicues and whatnot, but they do give good light. Furthermore, good lighting fixtures are inexpensive. At the project offices we have information on this type of fixture, and the local electricians have been encouraged to carry approved fixtures in stock.

An important part of convenient and flexible lighting is the proper location of switches and convenience outlets. The wiring check list will give you some suggestions on locating switches and outlets. But here, in a nutshell, is the main idea.

Switches should be placed to light your way. You should be able to see where you are going, without retracing steps or stumbling around in the dark. The most convenient location for the switch is about four and a half feet from the floor, near the doorway.

In rooms with two or more entrances it is advisable to have a switch at all of them, so that the light may be controlled when entering or leaving the room in any direction. A three-way switch of this type is also necessary on the main stairway, so that you may turn the light on the stairs from either the top or the bottom. It is convenient to control the yard light with such switches, so that the light can be turned on or off from either the barn or the house.

Most present-day lighting is done with portable lamps which are plugged into ordinary convenience outlets. Plenty of outlets are necessary then in good lighting. They provide flexibility—you can fit the lighting to various arrangements of furniture or to special needs. A rule to remember is to have at least two double convenience outlets in each room.

And now I would like to spend a few minutes on plumbing and running water. With an electric pump you can have water piped to the kitchen and an inside bathroom with modern sanitary fixtures. You will have plenty of water, both hot and cold, for laundry work and scrubbing.

Outdoors there will be no more "toting" water for the stock. When you mix mash for the hogs, or water the horses, a turn of a faucet will do the work. In the dairy and poultry house, as all stock raisers know, more water means more milk and eggs, and what is more important, more profits.



WHEN CONSTRUCTION BEGINS

A good plumbing system is not too expensive and it can be financed similarly to the wiring financing. Modern plumbing fixtures cost less than ordinary furniture.

In most cases, your present well is suited to an electric water system. The system consists of three parts. First there is the pump and pressure tank to take the water from the well to the house and barns where you need it. Secondly, there are the fixtures—the kitchen sink, the water closet, the bathtub and so forth. And finally there is the sewage-disposal system.

Such a system of running water and sewage disposal means healthier and happier homes. We have information at the project office on installing running-water systems that are serviceable and at the same time within the means of the average family pocketbook.

We are willing, in fact we want you to come in and talk over these suggestions with us. I believe that by following some of them you can find better satisfaction with your electric service.

STEP
3



LET PICTURES TELL THE STORY

Because film strips are small, light, easily carried, inexpensive, and simple to project, their popularity is increasing with farm leaders. REA film strips tell the story of electricity in a non-technical way. They show how farm electrical service can be made profitable.

All REA film strips may be had from the L. E. Davidson Picture Service, 28 Maple Street, Angola, N. Y., for 55 cents each. Every film is accompanied by a descriptive lecture. Write to REA for information on subjects.

SEE NEXT PAGE FOR COMPLETE LIST OF REA FILM STRIPS

WHEN CONSTRUCTION BEGINS

Three new REA film strips that are of especial value to project workers are: REA-7 WIRING WISDOM, which stresses a safe and adequate foundation for full electrical service in good wiring installation; REA-8 HIGH-LIGHTS ON FARM LIGHTING, which gives practical help in planning a lighting system for the home and farm; and, REA-9, PLANNING FOR FARM PLUMBING, which shows how electricity can solve the problem of bringing running water to the farm.

In addition to the film strips on essential subjects, others available include:

REA-2—Electric Power Serves the Farm.

REA-3—A Visit to Rosedale.

REA-4—How to Develop an REA Project.

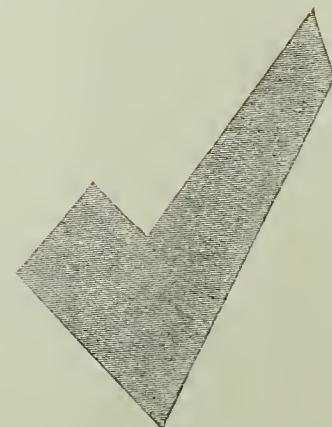
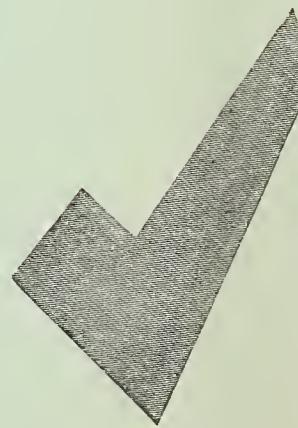
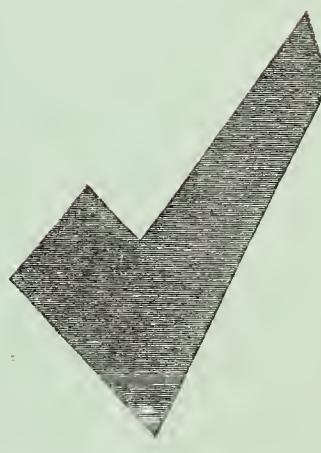
REA-5—The New Rural School.

REA-6—Running Water for the Farm.

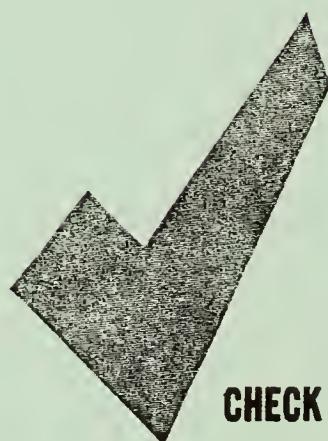
FILM-STRIP PROJECTION MACHINES

Where frequent use warrants it, a film-strip projection machine may be purchased at a moderate price. They may sometimes be borrowed from extension agents or automobile dealers. The machines are light in weight and can easily be carried and operated.

STEP
3



ONE MONTH AFTER



CHECK COMPLETED MOVES.

- A.** Mail Letter No. 5 with "Home and Farm Appliances" leaflet. Give out Statement No. 5 for newspapers.
- B.** Hold group meetings on appliances for farm and home. See suggested Appliance Address for the Project Superintendent. Explain Electric Home and Farm Authority financing plan.
 - 1. Show REA film strips on appliances.
- C.** Emphasize need for completing wiring.
- D.** Check number of houses wired and service contracts obtained against minimum number required to make project self-sustaining.

STEP 4

CONSTRUCTION BEGINS

ONE MONTH AFTER CONSTRUCTION BEGINS . . .

those to be served should have some definite plans in regard to the use of appliances on their farms. Group meetings to discuss and demonstrate appliances will give them many suggestions concerning the electricity they are about to receive . . . REA literature on appliances and equipment and REA film strips help to acquaint farmers with these uses . . . Wiring contractors should have many installations completed by this time. All remaining wiring installations should be finished by the time the lines are energized . . . Local electricians and equipment dealers should carry approved lighting fixtures in stock. Modern fixtures are designed for seeing. They are inexpensive and attractive. The project superintendent should be ready to advise new users where and how to buy them.

ONE MONTH AFTER

STEP 4

CONSTRUCTION BEGINS

A

LETTER 5

STEP 4

(Note.—Mail Letter No. 5 one month after construction begins. Enclose folder "Home and Farm Appliances.")

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

Our meeting last month to discuss wiring and lighting was a great success. Several members have told me that they enjoyed it and learned a good deal besides. Recreation and education at the same time—no one can ask for more than that.

Now the directors have planned another meeting to discuss electrical equipment—its uses, prices, and where to get it. This will be held at the same place, (GIVE PLACE OF MEETING), on (TIME AND DATE). The County and Home Demonstration Agents will be on hand, and we have some more film strips from REA showing electrical equipment at work on typical farms.

There are over 200 ways to use electricity profitably on the farm. We won't have time to go into all of these, but we will tell you about the most important.

I am sure that those of you who attended the meeting on wiring will not miss this one. The rest will want to attend. Bring the entire family. Everybody will be interested.

Yours very truly,

ONE MONTH AFTER

STEP 4

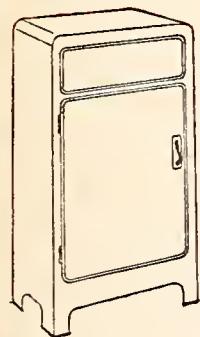
CONSTRUCTION BEGINS

A

Abundant Use of Economical Helpers

Refrigerators

reduce food spoilage by automatic temperature control. Left-overs can be saved and food supplies can be laid in several days in advance. Electric refrigerators cost less to operate than the old ice boxes. They range in price from about \$80 to \$275. Average use, 50 kwh. per month.



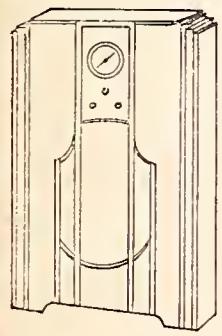
Roasters

can be secured in capacities varying from 1½ to 18 quarts. The larger ones will cook a complete meal of meat, vegetables, and pudding for several people. The prices range from about \$10 to \$50. Average use, 50 kwh. per month.



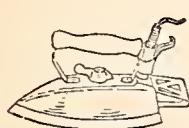
Radios

enable you to keep up with the news of the world, market prices, weather conditions, etc. They bring you entertainment and make home more enjoyable for the entire family. Table models range from about \$10 to \$100 and the console models range from about \$30 up. Average use, 10 kwh. per month.



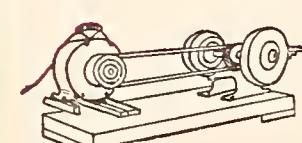
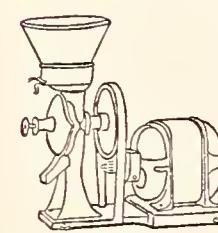
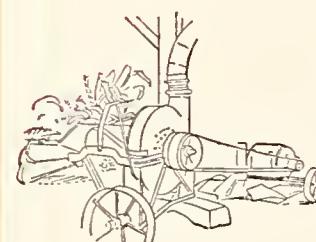
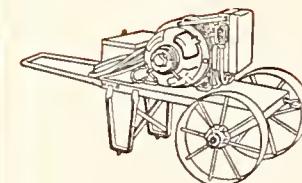
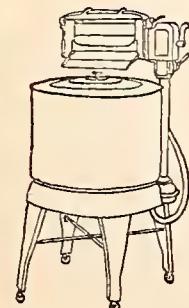
Irons

have been changed by electricity from "sad irons" to "glad irons." Light weight, a cool handle, perfect balance, and automatic heat control take the drudgery out of ironing. The various types range from about \$2 to \$9. Average use 6 kwh. per month.



Clothes Washers

make wash day almost a pleasure as the electric motor hums at its work. They cleanse thoroughly and are available in capacities of 4 to 14 pounds. Those equipped with the safety-cushion wringer range in price from about \$40 to \$130 and those with the new centrifugal dryer from about \$100 to \$160. Average use, 3 kwh. per month.



5-hp. Portable Motors

mounted on two-wheel hand trucks save time, effort, and expense in performing heavy-duty farm tasks. They require heavy-duty wiring. A convenient length of heavy-duty, rubber-covered cable is provided as well as a safety device to protect the motor against overloading. They are paying their way in grinding and mixing feed, filling the silo, elevating grain, shredding or shelling corn, baling and hoisting hay, sawing wood, and other jobs where convenient belt power is desired.

Ensilage Cutters

and silo fillers of proper size may be operated with a 5-hp. portable motor if 12- or 13-inch cutters are used. Although it takes somewhat longer to fill the silo with these smaller units, it requires fewer men and the actual cost is considerably less. The controls for the motor and the apron of the feeding platform can be so arranged that they can be easily operated by the wagonman without a helper. The current consumption averages about 1 to 1½ kwh. per ton.

Feed Grinders

electrically driven, save time and labor and provide the benefits of a ready supply of freshly ground feed. There are available several different types and sizes of feed grinders designed for operation by a motor of from ½- to 5-hp. size. They save those costly trips to town and grind feed very inexpensively and with little attention. The power consumption is from ½ to 3 kwh. per 100 pounds of feed, depending on the fineness of grinding.

Portable 1/4-hp. Motors

do many jobs about the farmstead. They save time, effort, and expense. By adding an overload switch, a long extension cord, and an improvised handle and base, the motor can be moved around to operate the band saw, churn, corn sheller, cream separator, drill press, egg-tray cleaner, ice-cream freezer, sausage grinder, tool grinder, and a long list of other devices. Prices range from about \$10 to \$15. Average use about ½ kwh. per hour.

Lower Expenses

ONE MONTH AFTER

ONE MONTH AFTER

Operating Costs

The kilowatt-hour (kwh.) is the standard unit of measure of electrical energy consumed as shown on your electric bill. To estimate your operating cost add the average monthly kilowatt-hour consumption for the appliances you intend using, for example: Lighting and small appliances, 30 kwh.; radio, 10 kwh.; water pump, 15 kwh.; clothes washer, 3 kwh.; and feed grinder, 25 kwh., and you get a total of 83 kwh. per month. The kilowatt-hour rates usually decrease as you use more electricity. The following example is based on such a rate (insert your own rate figures to get your estimated cost):

Rates	Amount used	Cost
First 40 kwh., \$2.75.....	40 kwh.	\$2.75
Next 40 kwh. at 4½ cents each.....	40 kwh.	1.80
Next 120 kwh. at 2½ cents each.....	3 kwh.	.08
Over 200 kwh. at 1½ cents each.....	0 kwh.	.00
	83 kwh.	\$4.63

Average cost per kilowatt-hour, 5½ cents.

The average cost per kilowatt-hour decreases when you use additional household appliances and farm equipment since you buy the additional electrical energy at the lower rates. For example, if, in addition to the above equipment, you also use a refrigerator, electric milker, brooder, and electric range consuming a total of 304 kwh. per month, your total monthly consumption will be 83 plus 304, equals 387 kwh. Figure your example as above for this monthly total.

Rates	Amount used	Cost
First 40 kwh., \$2.75.....	40 kwh.	\$2.75
Next 40 kwh. at 4½ cents each.....	40 kwh.	1.80
Next 120 kwh. at 2½ cents each.....	120 kwh.	3.00
Over 200 kwh. at 1½ cents each.....	187 kwh.	2.81
	387 kwh.	\$10.36

Average cost per kilowatt-hour, 2½ cents.

It is interesting to note that in the second example you are using more than four and one-half times as much energy as in the first example and at only slightly more than twice the cost.

Appliance and Wiring Loans

The quantity of current consumed has an important bearing on its cost to the consumer. As this quantity increases, the average cost per kilowatt-hour is reduced. That is one reason why the farmer should have adequate wiring and appliances from the beginning.

The Federal Government, in its rural power program, is trying to clear every obstacle. In addition to the loans for new power-line construction, REA is financing adequate and proper wiring for farm homes and buildings. A financing method that has been used with some success is for the company or public agency which owns and operates the distribution lines to borrow the funds for wiring from REA. The borrowing agency will employ local electrical contractors to do the work and will assign the notes of the individual farmers to REA as security for the loan. No loans are made directly to individuals. Wiring may be done on a group basis so that advantage can be taken of the savings resulting from group purchasing.

Pressure water systems, including up-to-date kitchen and bathroom facilities, are among the greatest benefits farmers will receive from electricity. In order that running water may be available as soon as the current is switched on, REA financing is available for plumbing both in the farmhouse and other farm buildings. A plumbing loan may finance an outside pressure water system for watering stock. It may also finance a bathroom installation, including three fixtures—bathtub, lavatory, and toilet; the kitchen sink; and unless otherwise provided for, a pressure tank and pump. The methods of this financing correspond generally to the methods described above in connection with wiring loans.

Federal financing is also available for the purchase of electrical appliances and equipment in rural districts. REA will advise those interested on the requirements necessary for obtaining such assistance.

The logo for the Rural Electrification Administration (REA) is displayed in a stylized, blocky red font. The letters 'R', 'E', and 'A' are interconnected, with 'R' and 'E' being larger and 'A' being smaller, positioned below the others.

**Helping You
to
Help Yourself**

**Home and Farm
Appliances**

**Rural Electrification Administration
Washington, D. C.**

STEP 4

CONSTRUCTION BEGINS

A

NEWS STATEMENT 5

STEP 4

(Note.—Issue Statement No. 5 or call Editor at time Letter No. 5 is mailed.)

A second meeting of all members and prospective customers of (GIVE NAME OF COOPERATIVE), to be held on (TIME AND DATE), at (PLACE OF MEETING), for the purpose of discussing electric appliances and their uses, was announced by (NAME OF SUPERINTENDENT), superintendent, in a letter to the cooperative members.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

Our meeting last month to discuss wiring and lighting was a great success. Several members have told me that they enjoyed it and learned a good deal besides. Recreation and education at the same time—no one can ask for more than that.

Now the directors have planned

another meeting to discuss electrical equipment—its uses, prices, and where to get it. This will be held at the same place (GIVE PLACE OF MEETING), on (TIME AND DATE). The county and home demonstration agents will be on hand, and we have some more film strips from REA showing electrical equipment at work on typical farms.

There are over 200 ways to use electricity profitably on the farm. We won't have time to go into all of these, but we will tell you about the most important.

I am sure that those of you who attended the meeting on wiring will not miss this one. The rest will want to attend. Bring the entire family. Everybody will be interested.

Yours very truly,

Economical Helpers

5-hp. Portable Motors

mounted on two-wheel hand trucks save time, effort, and expense in performing heavy-duty farm tasks. They require heavy-duty wiring. A convenient length of heavy-duty, rubber-covered cable is provided as well as a safety device to protect the motor against overloading. They are paying their way in grinding and mixing feed, filling the silo, elevating grain, shredding or shelling corn, baling and hoisting hay, sawing wood, and other jobs where convenient belt power is desired.

Ensilage Cutters

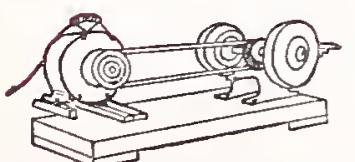
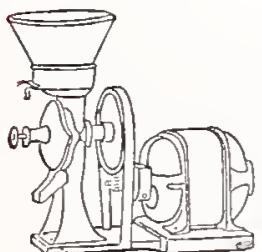
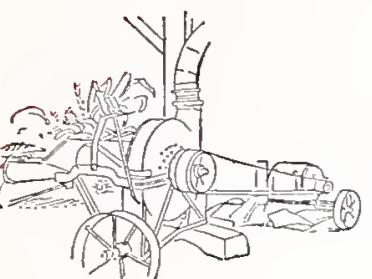
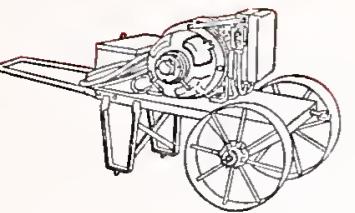
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Feed Grinders

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Federal financing is also available for the purchase of electrical appliances and equipment in rural districts. REA will advise those interested on the requirements necessary for obtaining such assistance.

REA

Helping You
to
Help Yourself

Home and Farm
Appliances

Rural Electrification Administration
Washington, D. C.

Lower Expenses

For further information write to the
Rural Electrification Administration
Washington, D. C.

O P O 16-5112
210-U-8-37

STEP 4

CONSTRUCTION BEGINS

ONE MONTH AFTER

STEP 4

CONSTRUCTION BEGINS

B

APPLIANCE ADDRESS

STEP 4

SUGGESTED ADDRESS ON FARM AND HOME APPLIANCES FOR PROJECT SUPERINTENDENT

IT IS a genuine satisfaction to me to speak to this group on farm and home electric appliances and what they will do. I may be able to give some of you who have not already purchased your electrical equipment a few pointers. Remember always that the appliances you have on your farm and the use you make of them determine the value of electric service to you in dollars and cents, and in terms of better living.

First, let me give you a picture of electricity at work in American homes. In 1935, thirteen billion—billion, mind you, spelled with a "b"—kilowatts of electric current were used in domestic consumption. Thirteen billion is a lot of anything—bushels of wheat, tons of hay, or kilowatt-hours of electricity; but it is hard to picture. You and I can more easily think of it in terms of better living, greater comfort, less drudgery, clean bright homes, entertainment, and helps of many kinds for every person in the home.

Owen D. Young, of the General Electric Co., said not long ago, "We have spent ourselves both brains and money in the creation of great machines. Now let us turn that energy and experience to building the most important mechanism of human life—a modern American home."

Every year more of these modern American homes are found along our countryside. We have made a great advance in increasing the number, especially in the last 2 years. But we have just started.

Let us see now what is available in the way of electrical equipment that will help to make our rural homes better machines to live in. First, there is electric lighting. Not just lights, but good lighting—adequate in every way, so placed about the house that each room will be properly lighted for the use the family makes of it.

ONE MONTH AFTER

Next, there is running water in the kitchen, a good kitchen sink, and perhaps an electric water heater.

A modern bathroom fits into this rural home, complete in every detail. It is well-designed and moderate in price. Think of the improved sanitation, the better health habits for the entire family, and the comfort not available before.

The electric refrigerator is one of the most useful pieces of equipment that can be bought for a farm home. In point of economy it costs far less to run than to buy ice in town or put it up in the winter for summer use. It is said that a hundred pounds of ice weigh more than a hundred pounds of anything else. I believe any man here who has handled ice would agree to that. With an electric refrigerator there are no more trips to the springhouse, neither will you have to let the milk and butter down into the well to keep sweet from one meal to the next. This one piece of modern equipment for the modern home will save millions of dollars in food, besides its convenience.

The electric washing machine is one of the labor-saving devices which I hope will soon be found in every farm home. As to its operating savings, listen to this: The wash for a family of six can be done in half the time it takes by hand and the cost will be less than you pay for a single package of chewing gum, about the price of a 3-cent postage stamp. In some countries 12 cents a month might be pretty good wages. But I don't think many of you women would sign a contract to do four heavy washings a month for 12 cents. The electric washer will work for that.

Of course, the rural housewife is going to want a coffee percolator, a toaster, or other small pieces of electrical equipment, for her kitchen and dining room.

A vacuum cleaner can be had that will take the dirt out of the house for a whole year for about the price of an ice cream soda, and the housekeeper can discard her dust cap.

Every modern country home should have a radio. For the farmer it will be a necessity because of market reports and the practical information that has money value which comes over the air every day for his use.

There is nothing that provides a family with so much fine and inexpensive entertainment as the radio. It ought to make all the people in the whole world

STEP 4

CONSTRUCTION BEGINS

friendly, because the barriers of time and space have been eliminated and we no longer need to be strangers to the rest of the world.

Now we come to electric cookery for the modern rural American home. There is magic in it. The time is near at hand when the electric range will be within the reach of every farm woman throughout the country.

Now let us go outside to the modern farm itself. Most of you probably raise chickens. On the modern farm chickens are raised electrically. The electric brooder has supplanted the little brown hen. In fact, some people say it will do everything but cluck.

Perhaps the farmer has a dairy farm. With electricity his cattle barns are easily cleaned, equipped with electric fans for good ventilation, a good supply of running water, with drinking fountains for the cows. For the farmer with power has learned to water the milk before it leaves the cow. Electric milking machines cut time and cost of milking. Ensilage is chopped and blown into the silo by electric power. Feed is ground and mixed electrically. The milk is kept cool, preventing bacteria growth at much lower cost and much more efficiently than with ice. The farmer who has worked with all of this electrical equipment, knows he can produce better milk and receive better prices for it.

Now, look at the modern farmer's small, portable electric motor. He uses it for many things. It runs his cream separator, churns his cream, shells corn and grinds it, runs the grindstone. A larger motor will hoist hay up to the mow, saw the wood, and run the hay chopper or ensilage cutter.

I haven't been indulging in day dreams. I was never more serious in my life. These electrical appliances for the farm and home which I have been talking about I believe are not only going to interest you. You will gradually equip your own farms with them according to your needs and the type of farming you do.

Electricity is a growing habit. After you have once begun to use electric power you will gradually buy more and more electrical equipment. That is the story that seldom varies on electrified farms. All of rural America is beginning to talk and think electricity. There is no limit to electricity's power to serve you, and the more you use of it the less it costs.

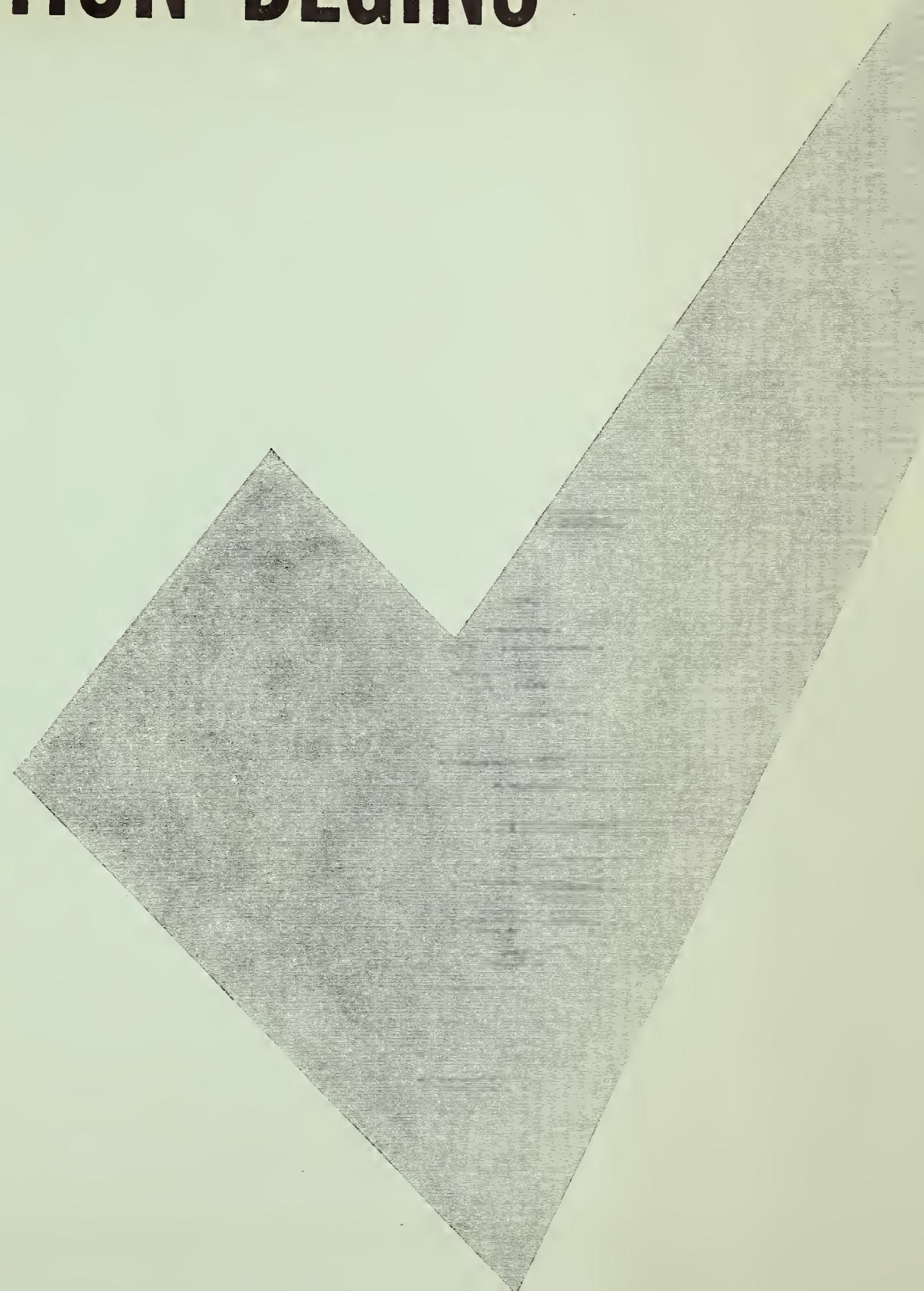
ONE MONTH AFTER

Some of you here may think that the day is far off before farmsteads will be well equipped with modern electric appliances. I do not believe that to be true. When electric service is available to farmers they will find a way to get these things which make possible for them a better way of living.

There is a deep-seated desire in the heart of all of us for better things for ourselves and for those we love. The fact that the rural electric line is here and about to be energized is proof of that.

STEP **4**

CONSTRUCTION BEGINS



WHEN FIRST SECTION IS



CHECK COMPLETED MOVES.

- A. Arrange ceremony to celebrate turning on of current. Mail invitations (Letter No. 6) and give out Statement No. 6 for newspapers.
- B. Energizing Ceremony—all-day celebration. See plan of activities.
- C. Urge dealer follow-up on project customers.
- D. Superintendent follow-up on unconnected customers.
- E. Check number of houses wired and service contracts obtained against minimum number required to make project self-sustaining.

STEP
5

ENERGIZED

WHEN FIRST SECTION IS ENERGIZED . . .

comes the first real test of the utilization program. Farmers along the energized section must be ready to take current at once. Their wiring should be completed and their equipment installed . . . Satisfied users are the best endorsement of the successful project. They will bring more and better farm-users of power on the sections of the line that are not yet energized . . . The project superintendent has finished his work only when 100 percent of the possible users in his area are connected to the lines and when they are using electricity in abundance.

WHEN FIRST SECTION IS

ENERGIZED

A

LETTER 6

STEP 5

(Note.—Mail Letter No. 6 several days before energization of the first section of the project.)

To the Members and Prospective Customers of the
(NAME OF THE COOPERATIVE):

The great day is almost here. We have stood together for a long time, and now all the obstacles have been overcome. The first section of our project will be energized on (GIVE DATE).

I believe that this will be a day worth celebrating, and the directors invite you to attend an all-day meeting at (GIVE PLACE) where the energization ceremonies will take place. Here the current which we have waited for so long will be switched on.

We want to make this the biggest turn-out this region has ever seen. There will be several speakers, including State and county officials, and the men and women who have worked in getting this line built.

A number of dealers will have electrical equipment on display and farm and household appliances of many kinds will be demonstrated.

This marks a new day for the community, and the celebration is the culmination of many months of effort in putting this project over. This is your line. As you enjoy the benefits and services of electricity over the months and years, you can well be proud of your part in building it.

Remember, the celebration is a family affair. Bring your lunch and come early. We will look for you.

Yours very truly,

WHEN FIRST SECTION IS

1. *When first section is*
2. *When first section is*
3. *When first section is*

ENERGIZED

A

NEWS STATEMENT 6

STEP 5

(Note.—Issue Statement No. 6 or call Editor at time Letter No. 6 is mailed.)

Plans for the ceremonies marking the energizing of the first section of the (NAME OF COOPERATIVE) farm power project are rapidly being completed, announced (NAME OF SUPERINTENDENT), superintendent, in a letter to prospective customers. Present plans call for an all-day celebration starting at (TIME AND DATE), at (PLACE), during which the switch will be thrown sending the first electricity over the new lines.

The complete text of the letter follows:

To the Members and Prospective Customers of the (NAME OF THE COOPERATIVE):

The great day is almost here. We have stood together for a long time, and now all the obstacles have been overcome. The first section of our project will be energized on (GIVE DATE).

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Yours very truly,

WHEN FIRST SECTION IS

STEP 5

ENERGIZED

B

ENERGIZING CEREMONY

STEP 5

The entire community usually looks upon the energizing of an electrification project with pride. It is a forward step in the direction of better living, and many projects have set aside the day for special celebration. It can be an all-day affair and the members should be encouraged to bring a basket lunch.

In planning energizing ceremonies, REA suggests that you secure a community building, schoolhouse or, if necessary, a tent in which to conduct them. Local appliance and farm-equipment dealers are usually eager to cooperate by sharing the expense involved.

The dealers should be encouraged to take this opportunity to exhibit their merchandise and to have a representative on hand to explain the use of the equipment.

The morning program, starting about 10 a. m., can be given over to talks by prominent State, local, and project officials. The climax of the morning program comes with the actual closing of the switch to energize the lines.

In the afternoon working demonstrations of the electric range and other home and farm appliances will create interest among the members. The dealers can decide among themselves by drawing which make of appliances will be used for the demonstrations.

The announcement of prizes—electric appliances of attractive value—has proved to be an excellent incentive to bring out the crowd.

Often the local newspaper editor will wish to put out a special "Rural Electrification Edition" the week prior to the ceremony. Dealer advertisements are especially effective in such an edition, and a number of news stories can be included to inform the members on the uses of electricity. REA will supply such articles to the newspaper upon request.

WHEN FIRST SECTION IS

STEP
5

ENERGIZED



**The successful load-building
program is always beginning
anew, always growing. When
the essential First Steps have
been taken, constant work,
thought, and imagination are
needed to insure the widest
use of electricity in farm life.**

REA LOAD-BUILDING MATERIAL ORDER BLANK

Utilization Division,
Rural Electrification Administration,
Washington, D. C.

Gentlemen:

I wish to follow your coordinated program for the fullest utilization of electricity on this project. Kindly send me literature in the following quantities:

	ITEM	QUANTITY
Pamphlets and leaflets	Wiring Your Farm and Home.	
	Dollars in Your Pocket.	
	Plan a Common-Sense Wiring System (Wiring Check List).	
	Get This Better Satisfaction from Electric Light.	
	Electrifying Your Farm and Home.	
	Good Plumbing More Than Pays for Itself.	
Posters	Home and Farm Appliances.	
	Wiring Poster.	
	Lighting Poster.	

As I fully understand the necessity for economical use of printed material, our order is based on the fact that we expect to obtain _____ customers on the lines being built under our present loan contract. We are ordering only sufficient posters to provide a set for each dealer and public building in our project area.

Yours sincerely,

(Project Superintendent)

(Project)

(County and State)

210-0-9-37

**The successful load-building
program is always beginning**

REA FILM-STRIP ORDER BLANK

L. E. Davidson Picture Service, Inc.
28 Maple Street,
Angola, N. Y.

Gentlemen:

Kindly send us, postage paid, the following REA film-strips with lectures at 55 cents each. We are enclosing our check, money order (cross out one) in the correct amount:

min.

TEAR OUT AND MAIL

NUMBER WANTED	TITLE	COST
	REA-7.—Wiring Wisdom.	
	REA-8.—Highlights on Farm Lighting.	
	REA-9.—Planning for Farm Plumbing.	
	REA-2.—Electric Power Serves the Farm.	
	REA-3.—A Visit to Rosedale.	
	REA-5.—The New Rural School.	
	REA-6.—Running Water for the Farm.	
		TOTAL COST,

Yours sincerely,

(Name) _____

(Address) _____

**The successful load-building
program is always beginning**

U.S. Rural electrification admin.

AUTHOR

First steps in load-building.

TITLE

n.d.

BORROWER'S NAME

